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ABSTRACT

Intended to assist Agency for International Development (AID) officers, advisors, and health officials in incorporating health planning into national plans for economic development, this fourth of ten manuals in the International Health Planning Methods Series deals with sociocultural, psychological, and behavioral factors that affect the planning and delivery of health care services in developing countries. Following a brief introduction (chapter 1), chapter 2 describes medical belief systems (definitions of health and illness) in Central and South America, the Middle East, Asia, and Africa. The first part of chapter 3 then discribes the principles operating behind the factors and how the factors function. In the second half hanging behavior is addressed. Chapter 4 outlines the fundamental concepts and concerns of an assessment. Chapter 5 offers practical information on methods of collecting sociocultural, psychological, and behavioral data: how to conduct research, possible problems, and solutions to them. The last chapter discusses obstacles to the transfer of medical technology and methods of overcoming them. It closes with a set of specific questions to be used in guiding an assessment. (A supporting document in the International Health Reference Series containing a literature review and annotated bibliography is available separately as CE 024 226.) (YLB)

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International Health
Planning Methods Series

4

Socio-Cultural Factors in Health Planning

Guidelines for Analysis of Socio-Cultural Factors in Health

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Guidelines for Analysis of Socio-Cultural Factors in Health Planning

U.S. Department of Health, Education, and Welfare
Public Health Service
Office of the Assistant Secretary for Health
Office of International Health

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PREFACE TO THE SERIES

The International Health Planning Methods Series has been developed by the Office of International Health, Public Health Service, on request by the Agency for International Development.

The series consists of ten basic volumes which cover a variety of health issues considered vital for effective development planning. These ten volumes are supplemented by six additional works in the International Health Reference Series, which list resource and reference material in the same subject areas.

The International Health Planning Methods Series is intended to assist health sector advisors, administrators and planners in countries where the Agency for International Development supports health-related activities. Each manual attempts to be both a practical tool and a source book in a specialized area of concern. Contributors to these volumes are recognized authorities with many years of experience in specialized fields. Specific methods for collecting information and using it in the planning process are included in each manual.

The six supporting documents in the International Health Reference Series contain reports of literature surveys and bibliographies in selected subject areas. These are intended for the serious researcher and are less appropriate for broad field distribution.

The volumes in the International Health Planning Methods Series contain the collective effort of dozens of experienced professionals who have contributed knowledge, research and organizational skills. Through this effort they hope to provide the AID field officer and his host country counterparts with a systematic approach to health planning in developing countries.

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PREFACE TO VOLUME FOUR

This manual describes sociocultural and behavioral factors that affect the planning and delivery of health care services in developing countries. It is the fourth volume in a series of works known collectively as the International Health Planning Methods Series.

The series was produced by the Office of International Health as requested by the Agency for International Development to provide AID advisors and health officials in developing countries with critically needed guidelines for incorporating health planning into national plans for economic development.

Material selected for use in this volume includes a broad range of sociocultural, psychological and behavioral information. Central and South American, Middle Eastern, Asian and African medical systems are described within a cultural context, and special attention is given to obstacles to the transfer of medical technology.

The need for awareness and sensitivity during any cross-cultural activity or communication is frequently underscored. Examples of programs that have foundered on this point as well as some programs that have enjoyed unexpected success are described with humor and understanding.

Preparation of this volume was undertaken for the Office of International Health by Plog Research, Inc., functioning as a subcontractor to E.H. White & Co., of San Francisco, California. The primary author of this manual was Renee White Fraser, Ph.D.

The purposes of this manual are threefold: (1) to identify sociocultural, psychological and behavioral factors for the benefit of health care planners in developing countries; (2) to discuss principles of culture and cultural change to the extent that it aids effective and responsible health care interventions; (3) to suggest methods for gaining relevant data for making accurate assessments and effective plans for improved health care.

Materials cited in this manual have been drawn from the literature of a variety of fields including psychology, epidemiology, anthropology and sociology. Selection of materials has been based on a need to emphasize principles directly related to development of health care systems to the exclusion of more general approaches.

An effort has been made throughout to blend detailed knowledge with practical advice and insight. At all times the goal has been to identify specific points where sociocultural factors impact upon health care, and to suggest methods for integrating sociocultural information into health program planning.

For instance, the point is made that regional assessments of health needs as perceived by local residents must be balanced with a recognition that cultural factors may tend to exaggerate or ignore certain important areas. Similarly, implementation of any health innovation must occur within the cultural context, and is most effective when closely adapted to existing cultural predilections.

The author of this manual, in addition to describing the technical aspects of certain health programs, has also expressed personal viewpoints on the current status of certain programs in developing countries. While her views generally coincide with those of organizations and agencies with which she is associated, the material in this manual should not be construed to reflect the official policy of any agency or organization.

A working knowledge of sociocultural factors that affect health in various parts of the world is an essential tool for the adviser or planner who would attempt to implement a successful health program. This volume, it is hoped, will assist in understanding the success or failure of past programs while it provides a more sound basis for planning health services within the context of national development.

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Office of International Health

ACKNOWLEDGMENTS

Each volume in the International Health Planning Methods Series has been the work of many people. In addition to the primary authors, each manual has involved government reviewers and reviewers from positions outside government, editors, revisors, and numerous technical and support personnel. Substantial contributions have been made by manual advisors, who provided the authors with the benefit of their knowledge and experience in the fields under study.

With reference to Volume 4: Socio-Cultural Factors in Health Planning, special thanks are in order for contributions made by Dr. John Hanlon and Susan C.M. Scrimshaw.

Gratitude is also acknowledged to Dr. George Coelho, Dr. Lucy Cohen, Margaret Mead, and Irv Taylor for their helpful advice.

While the present work could not have been completed without the assistance of these individuals, responsibility for the content of this manual rests solely with the authors.

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CHAPTER ONE

INTRODUCTION

This manual has been designed to function as a tool to facilitate effective assessment and planning for health needs and health care systems in developing areas. A premise of the manual is that a society's conception of health is integrally related to its culture. Furthermore, any advancement or change in the existing health care system will require attention to those sociocultural factors that affect health in order to insure program effectiveness.

Benjamin Paul, in his classic text, Health, Culture and Community, strongly supports this premise: ". . . An important aid to understanding the community and its reactions to a medical problem or health program is the concept of culture with its accent on pattern and function as well as on specific items of belief and practice. The threads of health and illness are woven into the sociocultural fabric and assume full significance only when perceived as part of the total design."

This manual underscores and illuminates those various sociocultural influences and key life experiences that influence health programs. Additionally, it offers a framework and specific methods by which to understand the sociocultural fabric of a people and its significance to health care planning.

Intervention for the purpose of eliminating or preventing illness and disease in developing countries requires changes in people's lives. Planning for these changes and the introduction of them in many cases requires the utilization of psychological and cultural knowledge in order to direct people towards goals they do not necessarily desire. This raises the significant ethical question of the morality of attempting to manipulate or maneuver human beings. This serious issue reflects the well-founded fear that applied social science, like other technical developments, can be abused, employed to exploit and control.

The situation in which these interventions are introduced has the following characteristics, according to Edward Spicer in Human Problems in Technological Change: Millions of men, women, and children all over the world desire more freedom than they now possess from starvation, disease, and physical insecurity. These people under stress, together with others who are more fortunate, are aware of the technological power and efficiency of the West and would like to have some, if not all, of these advantages. The people who desire such improvements have little perception of the complex human difficulties involved. They want change, but have very incomplete ideas of the cost to their way of life. The members of Western society who introduce the changes are also incompletely aware of consequences.

As a result of this situation, those who introduce interventions in health or industrialization have some responsibility for the human relations involved in their work. Meeting that responsibility is also the key to developing effective programs. Although freedom from disease may be the goal of an innovator and the people of a developing nation, the people may have to be

led to appreciate many subgoals, for example, cleanliness in the house and hygiene, which are not part of their original perceptions of the problem. At the same time, information about the cost-benefit utility of adopting Western sanitary regulations might be necessary to prevent greater disruption than any gain could justify. In each case a psychological and cultural understanding of the people is useful in implementing change. The manual provides a basis for that understanding and tools to be used to implement successful change.

The introduction of medical and technological advancements to developing nations carries with it another responsibility which is derived from the fact that any intervention in the form of knowledge or actual programs changes a culture. Those changes are significant and sometimes devastating (Mead, 1953; Foster, 1962). The important decision to intervene, to induce change, carries with it a responsibility to find methods of harmonizing that intervention with the existent cultural values so as to ensure the social integrity of the peoples. Such methods will also enhance the probabilities of successful intervention, but foremost is the innovator's responsibility to the integrity of the culture.

This manual has been designed to be both practical and educational. It is geared toward producing an assessment report as the final product. However, a certain quantity of insight, understanding, and forethought must be developed to insure the quality of the assessment. Thus, a lot of detailed information regarding the operation and manifestation of sociocultural psychological, and behavioral factors has been included.

The common core of the assessment is addressed first—that is, health and illness. This chapter describes medical belief systems that are found in the four major areas of the world: Central and South America, the Middle East, Asia, and Africa. These descriptions are by no means complete, but the information illustrates the need for careful sociocultural assessments for producing effective health care programs. The text also offers some innovative solutions to transferring medical knowledge that underscore the importance of using sociocultural and psychological characteristics of a community to shape a health program. At the end of the chapter are numerous assessment questions that will provide guidance in developing an assessment. These questions are tools to be used in directing both formal and informal research during the assessment.

The next chapter identifies the sociocultural, psychological and behavioral factors that affect health and health care delivery. The characteristics of a culture which illustrate these sociocultural and psychological factors vary among cultures. Thus, the chapter does not describe the factors, but describes the principles operating behind them and how the factors function. The text also includes suggestions for ways of measuring and becoming aware of all these factors. In the second half of this chapter, changing behavior is addressed. Most health care delivery programs require changes in behavior. For that reason, a working understanding of the principles which govern behavior will aid in assessing why a program works or does not work and how a program could be designed to work. The chapter discusses the principles which govern behavior and behavior change. Again, the chapter ends with a series of assessment questions to be used to understand the sociocultural and psychological fabric of a culture as well as questions to be asked for understanding and changing behavior.

The text then presents the fundamental components and concerns that should direct an assessment. This chapter outlines basic areas an assessment should cover and poses questions that must be addressed within each area. Additionally, it covers some common elements found among health care delivery programs throughout the world.

In the next chapter, Methods of Collecting Sociocultural, Psychological, and Behavioral Information, very practical information is imparted. This chapter offers the pragmatics of conducting research of any type in an LDC. It offers detailed information about how research should be conducted, what possible problems can occur, what solutions can be applied to those problems.

The last chapter offers more specific guidance for the transfer of medical technology. It discusses several common problems encountered in assessing, planning, and developing health programs in LDC's. A variety of successful ways of identifying and surmounting these problems are presented. The chapter stresses the importance of community involvement and careful observation in bringing about successful programs. The importance of integrating medical programs into the existing traditional or community medical system is also emphasized. This chapter also closes with a set of specific questions to be used in guiding an assessment.

CHAPTER TWO

DEFINITIONS OF HEALTH AND ILLNESS THROUGHOUT THE WORLD

This section describes in limited detail some of the traditional systems of health and belief systems which are found throughout the world. It serves to orient the reader and to sensitize the reader to the complexity of beliefs and behaviors that surround the concept of health in any culture. This material is presented to offer guidance, but it is in no way a substitute for on-site observations and research. The material is organized around the four major land areas that include less developed countries. However, it is crucial to note that regional differences in belief and practice are to be expected.

What a people considers to be good health and illness varies widely among cultures and within cultures. In the assessment of the need for health care and existing health systems, an understanding of conceptions of health and illness is very critical.

A health planner's conception of good health and illness is influenced strongly by his or her culture. The viewpoint of those who will use the health care system is more valid than the health planner's view, and it should be explored in planning any health care system. Any assessment should include an examination of the existing set of beliefs and practices. This should include an analysis of which health healers or practices are used for curative and preventative purposes and by which groups.

The general priority given to "good health" within a society's scheme of values should also be investigated because it will vary. This is a difficult concept for people professionally involved in health to grasp. Individuals in the health field understand the short and long term consequences of health. As a result, health is clearly a priority. This perspective is not shared throughout the world. But to be successful in gaining acceptance of any health program, plan, or implementation of a program, the perspective of others is necessary.

An understanding of a community's own priorities or a nation's goals is vital if a health program is to have the appropriate components to make it acceptable and effective. When local people are integrally involved in program planning at the community level, they can identify what changes they want in the general quality of their lives and how health care programs can facilitate those changes. In this way the community's priorities can come forward.

What people desire to gain from life varies by culture. It affects their attitudes toward health care programs. Medical personnel often suffer from a myopic perspective assuming that medical care is always desirable. It is forgotten that judgments about being ill, seeking medical care, and about dying are culturally determined. The cultural values and practices that affect those judgments should be considered before a health care program is planned and as it is administered.

An example that best demonstrates the values that affect judgments about life and death comes from Brownlee (1978). She reports an Anglo physician's story of an old Navajo man who decided to die rather than endure a colostomy

that would save his life and force him to wear a tube and outside bag to catch his stomach wastes:

"(The doctors had) gone to all this trouble to talk with this old man who had cancer of the stomach. They had him all ready for a colostomy, explained everything to him, all the risks and everything else. And he sat down and thanked them very much for all they had done and thanked them for their concern about his life and told them he wasn't going to let them operate on him. And about that time a lot of people left the discussion, but the ones that stayed found out why. He said, 'Because right now I'm known as Hostine Yassie, and if you operate on me I'm going to be known as The-Ol'-Man-Who-Shits-Through-His-Stomach. I'm not going to do it.'"

Since a community's conception of health is integrally related to its culture, simple definitions of health throughout the world do not exist. The state of well-being and what constitutes a deviation from it varies. The complexes of symptoms recognized as diseases within Western medicine, with biological or theoretical psychological causes, persist in varying degrees throughout the world. However, they do not exist as those same distinct units conceptualized by modern medicine. What follows are brief descriptions of conceptions of health and their related cultural meanings in Central and South America, the Middle East, Africa, and Asia.

Central and South American Medical System

Individuals of Spanish heritage living in Central and South American hold socio-cultural values that inculcate traditional religious dogma. The individual is conceived as of "an integral being - body and soul" with specific social roles, "honorable manhood" for the male, and "immaculate motherhood" for the female. Health is based on the extent to which the individual fulfills his or her ideal social role. Therefore, illness represents a moral crisis invoked by the supernatural, and cure is thought to be affected, directly or indirectly, by supernatural forces.

Within these cultures, the germ theory of disease holds little meaning. Instead, the indigenous systems of folk medicine are based on humoral medicine. The body is in a state of equilibrium or health when the correct proportion of hot and cold exists. One's life is affected by the ever-present qualities of hot and cold. The humoral qualities of hot and cold do not refer to actual temperature changes. Similarly, the terms wet and dry do not pertain to water content. These qualities refer to the innate character or essence of a given object or personal state of being. Natural objects, foods, and illnesses possess these symbolic qualities and can alter the health of an individual through contact, consumption, or contagion. For example, over-consumption of hot foods increases the body's normal content of heat and, if excessive, provokes ailments that are labeled as hot in nature. Treatment would call for equalizing the body's temperature balance and restoring neutrality by consuming a number of "cold" foods and medicines.

In the areas of Latin America and some parts of South America, the Hippocratic theory of humoral medicine was simplified as a result of cultural trait selection. The qualities of wet-dry became less significant while temperature grew in importance and has come to dominate beliefs about health and illness in these parts of the world.

The patterns of hot-cold classification of food, illness, and medicine are not uniform. They actually vary considerably among groups within Meso-America. The cognitive system that underlies the various classification, however, is universal. It is based on the assumption that elements exist naturally in a state of binary opposition and that the effect of one element equalizes the

valence of another. The conceptual criteria segregating the elements into opposing qualities has recently been investigated by Harwood (1971).

When physicians prescribe medicine or dietary regimens that conflict with a patient's belief in the humoral concept, the successful treatment of that patient is of low probability. The probability of a physician changing a patient's belief in humoral medicine in the course of often infrequent and impersonal treatment sessions is also very low. In fact, the general pattern in much of Latin America is that modern Western medicine does not replace or significantly alter patterns of folk medicine. Instead, it serves as an additional system employed concurrently with traditional forms of humoral medicine (Gonzales, 1966; Simmons, 1955; Press, 1971).

To improve the efficiency of health care in developing countries, the literature suggests that medicines and dietary regimens known to be clinically effective be provided within therapeutic programs that are sympathetic to and compatible with patients' beliefs and cultural habits. In the case of humoral medicine, Harwood (1971) and Logan (1973) have systematically studied the humoral medicine belief system to find a means for adapting modern medicine techniques to increase their effectiveness and acceptance.

Logan (1973) found that Guatemalan and Puerto Rican patients would reject medication when there was a conflict between the temperature qualities of a patient's condition and the prescribed medicine. For example, vitamins were rejected in the treatment of illnesses producing high fevers. Fruit juices were rejected in treatment of the common cold. It became clear that patient behavior was predictable as long as the appropriate temperature qualities were known for both the illness and the prescribed medicine. Logan (1973) has identified the conceptual criteria that are used to determine the temperature qualities of various items, bodily states, and medicines. He has also identified and empirically verified the definitional criteria underlying the classification of foods and medicinal plants in humoral medicine. He reports the definitional criteria involved in classifying illness within this medicine system to include etiology, therapeutic prescription, individual sensation, and affected organs and body substances. The cognitive notions that are used in humoral medicine in classifying illness have been identified. These are as follows:

> Etiology: When etiology is known, the ailment is equal in temperature to that of the cause. One 'overcome' by evil eye, for example, will manifest an illness also hot in nature.
>
> Therapeutic prescription: Instructing a patient to omit hot foods from his diet— say peppers and liquor— inadvertently isolates a temperature quality as the illness equal to that of the restricted foods. In this case, the illness would be hot because the forbidden foods are hot.
>
> Individual sensation: In general, when a patient has a sensation of being 'chilled' or 'heated' due to abnormal metabolic temperature, his condition is categorized equally to that of his sensation. If chilled, the condition is cold; if feverish, the condition is hot.
>
> Affected organs and body substances: Lastly, illnesses affecting specific organs or body substances are of the same temperature quality of the organ or substance. Hepatitis, for example, is hot because it involves a pathogenic condition of the liver, which also is thought to be hot.

Logan has also empirically investigated how temperature classification of modern medicines occurs. Regardless of color, physical properties, and means of administration, a medicine is classified opposite to the culturally known temperature quality of the symptoms or illness for which it is to be used as treatment.

To effectively provide health care to those who believe in humoral medicine requires an understanding and acknowledgement of the temperature categorization scheme used. Logan (1973) has presented a technique and scheme of hot, cold, and neutral foods, medicinal plants, and commonly prescribed medicines. By knowing the temperature qualities of a patient's illness and the prescribed medicine, a physician can forecast patient behavior and develop a therapeutic program suitable to the patient's medical and ideological needs. This can be done by (1) selecting medicines and foods of the opposite temperature quality of that of the patient's condition, but if that cannot be done without jeopardizing the clinical effectiveness of treatment, then by (2) "neutralizing" the essential medicines and foods by jointly prescribing "placebo" elements of an appropriate temperature category to restore necessary opposition between the patient's condition and essential medication.

Middle Eastern Systems of Medicine

The essential philosophy underlying the system of medicine in the Middle East is that illness and injuries are subjective affairs arising out of personal actions conducted, not conducted or caused by someone or something possessed with a power. Illnesses and injuries do not just occur— they befall a certain victim at a given time and in a specific manner because of specific causal actions. (Shiloh, 1968).

The two concepts basic to preventive and curative medicine are belief in animism (spirits) and belief in animatism (impersonal powers, the evil eye) (Darity, 1965). Illnesses and injuries are caused or engendered by a spirit which enters the body and creates the difficulties or by a person or object with the power to negatively influence or affect the body. The spirit or power causing the illness must be exorcised or weakened to remove the illness and it is this spirit or power which must constantly be placated, frightened away, or misled. The spirit may be called "evil spirit," the "jinn," the devil, or "Satan." In some cases it has a specific name such as "Lilith." The power to affect and influence the body and nature in some circumstances is popularly concentrated in individuals possessing the "evil eye," although there are specific objects that may be used to attract or repel evil (Shiloh, 1968; Darity, 1965; Good, 1976).

The strength of the belief in these powers still exists. Hamady explains: "The belief in the evil eye is strong and widespread among Arab people. In their view, its bad influence spares nothing, for rarely can anyone escape the injury that it is able to inflict. It is considered a frequent cause of misfortunes, such as sickness, death, or bad luck. There are many popular sayings that mark its fatal effects: 'It empties the house and fills the tombs,' 'It is to the evil eye that belongs two-thirds of the graveyards.'"

The distinction between injuries affecting the "external body" and illnesses affecting the "internal body" is important. The emphasis in treatment of injuries to the external parts of the body is based primarily on remedying an obvious external difficulty. Thus, an individual who falls from a tree or suffers a burn may have been caused to suffer this affliction because of an evil eye. The treatment of the afflicted limb or section of the body is prompt and based upon objective principles of bone-setting, blood-stopping, flesh-soothing, and bandaging. In the case of illnesses of the inner body, there is a pronounced emphasis on preventive medicine with a developed complex of permissible and taboo actions governing one's lifestyle (Darity, 1965).

The evil spirits are ubiquitous in the environment according to the Middle Eastern belief system. Strong, healthy, mature individuals are the least susceptible to such attacks. The most susceptible are infants and children, the weak, the ill, and aged, and normally healthy persons in certain circumstances (e.g., women during menstruation, pregnancy, or while giving birth). Since the evil spirits are always lurking and ready to enter the body, susceptible persons should never be left alone. This is interpreted as a sign of abandonment to both patient and evil spirit.

The implications of these beliefs for culturally suitable health care are many. The continued presence of strong, healthy individuals near a patient is a strong deterrent to the evil spirit, but, unfortunately these people cannot be relied upon to be constantly on duty. To supplement for their power, various inanimate objects that possess strong powers to repel evil spirits are used.

Common objects of this nature are elaborated by Shiloh (1968): "A religious prayer or talisman tacked over the door is particularly efficacious in repelling the evil spirits from entering a home. In the home where there is an infant, various measures are taken to protect the child from the evil spirits. Iron wards off the evil spirits and therefore a mother may keep an iron knife or pair of scissors under the pillow of her baby. The Bible also possesses the power to repel the evil spirits and thus some Jewish mothers place a copy of this book beneath the pillow. Another practice, less commonly seen, is to preserve the foreskin cut off during the brith milah (the ceremony of circumcision conducted on every Jewish male child when he is eight days old), dry the piece of skin, powder it, sew it into a piece of cloth and keep it under the pillow or among the blankets of the child's bed. The personal foreskin of a child is considered efficacious in repelling evil." (p.10)

The treatment of illnesses of the inner body requires the use of traditional methods and reflects the strength of the beliefs in animism and animatism. It is understandable that the mysteriously concealed illnesses of the inner body convey fear of the unknown. The lack of knowledge of an objective treatment leads to an emphasis on subjective beliefs in evil spirits and evil power. In dealing with illnesses and the inner body, the primary emphasis is on prevention rather than treatment. It is recognized clearly and dispassionately that the techniques of curative medicine in illnesses of the inner body are not as successful as might be desired, whereas the results of preventive medicine are far more dramatic and fruitful.

The evil spirits also fear the name of Allah. Consequently, his name is uttered perpetually while engaged in the everyday routine of life. Healthy individuals in susceptible circumstances are careful to repeat his name and particular prayers as a preventive measure. The prevention of illness to the inner body caused by evil spirits, is based on misleading, deceiving, and deluding it. In contrast to the evil spirits, the evil eye is attracted to the healthy, the beautiful, the happy, and children.

In the Middle East, the principal possessors of the evil eye are women. Shiloh (1968) reports no available satisfactory explanation for this. Roheim (1953) suggests that the evil eye represents an envious eye. Thus, the preventive measures are based on the principle of not attracting the attention of this envious or evil eye. The youngest are particularly attractive to the evil eye since children are considered a blessing. Carrying out this theme of deception, children are kept ragged and unkempt in public; a child's name may be kept secret so as not to be utilized for evil purposes; and children are never praised in public or boasted about. Male children are highly prized in Arab society. Consequently, a male child may be dressed as a girl and referred

to in the feminine until the age of five to prevent the evil eye from focusing on him (Hamady, 1960).

This belief in deceiving the evil eye has great implications for social contacts and gaining accurate information from these people. Questions as to personal or family health as well as business or status should be replied to with shaking heads and gloomy predictions. Yet it is possible to accept praise or note good health, good fortune, or good looks, if one is careful to constantly invoke the name of Allah and/or deny the force of the evil eye. Particularly powerful in defense against the evil eye are amulets. Blue beads are the most common type, and they may be found on the person, in the house, on a dog, horse, cart, or automobile. If these preventive measures are ineffective and evil spirits do enter the body, or the evil eye finds the body interesting, and illness occurs, then curative medicine practices are used. These practices are recognized as being less effective than the preventative measures. Therefore, although the curative practices ostensibly aid in rejecting evil spirits or eliminating the influence of the evil eye, an attitude of fatalism persists. At a deeper level, the purpose of these curative practices is to provide emotional comfort and security to the patient and his/her family.

The type of folk medical practitioner used depends primarily on the ailment and the sex of the patient. Operating within this medical system are several types of local practitioners who specialize in areas and methods of treatment. The specialists also vary in sex, role, status, and reward (Shiloh, 1968). The local practitioner called upon to treat the external body has relatively little status and receives minimal rewards. Frequently, in rural areas, the local barber or shepherd has acquired an extensive knowledge in this area and is the primary provider of such treatment.

The areas of gynecology, obstetrics, and pediatrics are under the authority of women who have acquired experience in these subjects and who are no longer menstruating. In addition to utilizing the concepts and practices based on animism and animatism, these women possess a careful knowledge of local pharmacopeia and a shrewd grasp of the social and emotional factors surrounding each case. The "local pharmacologist" also functions as a specialist in some areas. This person possesses an extensive knowledge and stock of lotions, potions, herbs, and drugs from plant, animal, and mineral sources considered to be useful in treatment.

The practitioner responsible for preventive and curative medicine to the internal body is the highest status medical practitioner. This is commonly an older male of religious-medical standing. The interrelationship of religion and medicine as practiced on the internal body tends to surround this role with awe. This practitioner is clearly a knowledgeable person. Not only does he have access to a wide variety of diagnoses and treatments, but he has a sensitive ability to understand the interrelations of his patient, the family, and the community. Additionally, it should be noted that home care is most common, but there are other places of treatment. These locations have special positive powers often derived from association with holy or powerful people.

Asian Medical Systems

There are three regional traditions of Asian medicine: Chinese, Ayurvedic, and Arabic-Persian or Unani. All systems of medicine in Asia rely upon humoral theories. The Ayurveda doctrine incorporates five "bhutas" or basic elements; the "tridosa," or three humors; and seven "dhatus," or components of the body. The five elements are ether, wind, water, earth, and fire. Buddhist thought adds consciousness. Physical health is maintained when the humors are

in harmony. When they are upset, they become "troubles" of the organism. These systems of belief and the treatments within each are too complex for presentation in this paper.

The following account of Indian village life in Hyderabad State demonstrates how illness is a part of the ritual of Hindu life: "Most of the common diseases are interpreted as a 'fault in the physical system,' and are treated with herbal medicines or modern drugs obtained from the dispensary. Common colds, headaches, stomach ache, scabies, gonorrhoea and syphilis are regarded as natural diseases, and an effort is made to cure them with medicines. But persistent headaches, intermittent fevers, continued stomach disorders, rickets and other wasting diseases among children, menstrual troubles, repeated abortions, etc. are attributed to supernatural forces. In all such cases medicinal cures as well as propitiation of the 'unseen powers' are attempted simultaneously. Similarly such calamities as the failure of crops, total blindness, repeated failures in undertakings, deaths of children in quick succession and too many deaths in the family within a short time, are taken to indicate 'misfortune' and 'the handiwork of malevolent supernatural forces.' Smallpox, cholera and plague are always attributed to the wrath of various goddesses. For these diseases worship is regarded as the only remedy; and no medicines are administered to the patient." (Dube, 1955)

Opler (1963) who worked in North India, reports on the general approach of indigenous medicine which in many cases is a hybrid of the three regional traditions of Asian medicine. "Indian medicine considers disease as a state of disharmony in the body as a whole and a result not only of the external factors nor merely of the external causes. Hence, according to it, treatment should aim at not only the finding of appropriate internal remedies, but the employment of all available means to restore the normal balance or equilibrium. The comprehensiveness of the Indian medicine is further evident from the attention it gives to diet—both in health and in disease. It takes into account not only the prevailing season and climate but also the temperament and constitution of the individual." (Opler, 1963)

Kleinman, Kunstadter, Alexander, and Gale (1976) present an excellent series of papers comparing health care in Asian societies. Obeyesekere (1976) presents a translation of various Indian and Southeast Asian illness complexes and their Western counterparts. Leslie (1976) presents a series of articles on the structure, history, and modern impact of these three traditions in Asia. Another useful text is authored by Kiev (1964) who offers a useful discussion of folk treatments of mental illness. Kapur (1975) offers a more modern examination of the patterns of mental health care in India and current treatments by traditional and modern healers.

African Medical Systems

There are a wide variety of systems of medicine found in Africa. The basis of most African value systems is the concept of the unity of life and time. Phenomena that are regarded as opposites in the West exist on a single continuum in Africa. African thought draws no sharp distinction between animate and inanimate, natural and supernatural, material and mental, conscious and unconscious, whether they are visible or not. Past, present, and future blend in harmony; the world does not change between one's dreams and the daylight.

Essential to this view of the world is the belief that there is continuous communion between the dead and the living. Most African cultures share the idea that the strength and influence of every clan is anchored by the spirits

of its deceased heroes. These heroes are omnipotent and indestructible, and their importance is comparable to that of the Catholic saints. But to Africans, spirits and deities are ever present in human affairs; they are the guardians of the established social order. The common element in rituals throughout the continent— ancestor cults, deity cults, funeral rites, agricultural rites— is the unity of the people with the world of spirits, the mystical and emotional bond between the natural and supernatural worlds.

African concepts of health and illness, like those of life and death, are intertwined. Health is not regarded as an isolated phenomenon but reflects the integration of the community. It is not the mere absence of disease but a sign that a person is living in peace and harmony with his neighbors, that he is keeping the laws of the gods and the tribe. The practice of medicine is more than the administration of drugs and potions. It encompasses all activities— personal and communal— that are directed toward the promotion of human well-being. Acknowledged diviners and healers are able to discover the nature of illnesses. The explanation always involves a deity or an ancestral spirit.

Horton (1967) explains: "The diviner who diagnoses the intervention of a spiritual agency is also expected to give some acceptable account of what moved the agency in question to intervene. And this account very commonly involves reference to some event in the world of visible, tangible happenings. Thus if a diviner diagnoses the action of witchcraft influence or lethal medicine spirits, it is usual for him to add something about the human hatreds, jealousies, and misdeeds that have brought such agencies into play. Or, if he diagnoses the wrath of an ancestor, it is usual for him to point to the human breach of kinship morality which has called down this wrath." (p. 57)

The native doctors in Africa show unusual sensitivity to psychological needs. The emphases in understanding illness is not on how it occurred, but why it happened, an emphasis that is lacking in the Western medical system.

Assessment Questions To Consider

Some of the following questions have been adapted from Brownlee (1978). The first set deals with the meaning of health in a community.

- What do people in the community generally consider a state of "wellness," "good health" to consist of? A state of "illness" or "poor health" to consist of?
- What conditions of the body are considered normal and abnormal?
- Do these definitions vary with different groups within the community?
- What do people want out of life?
- When is life worth living?
- When does it become better to die?
- What priority does the value of "good health" have within the community?
- Where does "good health" fit within the hierarchy of values of goals in the community?
- What general changes in the quality of life do individuals or groups in the community desire, if any?
- How can health related changes fit in with these general goals?
- What beliefs do people have concerning the organs and systems of the body and how they function?
- What are people's beliefs concerning "prevention of illness?"
- Do they feel it is possible? In what types of cases?
- Are there any particular methods people use to help maintain their own health or that of others?
- What are people's attitudes toward vaccinations, immunizations, various screening tests, and other preventive health measures?

- Are illnesses within the culture divided into those considered "physical" and "mental" (or "emotional")?
- If so, which illnesses are considered to be physical and which mental? Which a combination of the two?
- What types of mental illness, if this is a category used within the culture, are generally thought to exist by various members of the community?
- Are there any conditions that may be considered "mental illness" by outsiders which community members feel are normal?
- What mental illnesses identified by Western medical science are common or of importance in the area?
- Do various members of the community have knowledge of the occurrence of each of these illnesses either by name or symptoms?
- Are any "diseases" of malnutrition common in the local area?
- Who is affected?
- What are the local beliefs about the causes of these diseases? Possible prevention and treatment?

For each mental illness identified to community members
  - What is its traditional or local name (if any)?
  - What is its Western medical name (if any)?
  - What are its symptoms? Its cause(s)?
  - What type(s) of person(s) does the mental illness usually affect?
  - Can it be prevented, and if so, how?
  - How is it diagnosed? Treated? Cured?
  - What types of practitioners or other individuals are best able to prevent, diagnose, and/or treat the mental illness?
  - What methods are generally used by each?
  - What are the typical attitudes toward this mental illness and the person who has it?
  - Are there any special taboos or other beliefs connected with the mental illness?
- In situations in which members of the community have recently migrated from another cultural area is mental illness caused or influenced by the cultural conflicts experienced during the period of readjustment?
- To what extent has this been a factor in the illnesses of particular immigrant patients?
- What are the typical community attitudes toward mental illness?
- How are the mentally ill treated and cared for by their families? Others in the community?
- What are the attitudes of community members toward receiving various types of help for their mental or emotional problems?
- Are certain types of treatment more acceptable within the culture? More likely to be successful?

The next set of assessment questions deals with the medical belief system.

- What general beliefs do various community people have concerning cause, prevention, diagnosis, and treatment of disease?
- Are there any special "theories of disease" to which certain people adhere?
- What is the general understanding of and attitudes toward Western medical explanations and practices?
- What specific types of disease or sickness are traditionally thought to exist by various members of the community?
- What diseases identified by Western medical science are common or of importance in the area?
- Do various members of the community have knowledge of the occurrence of each of these diseases either by name or symptoms?

For each disease identified by community members:
  - What is its traditional or local name (if any)?
  - What is its Western medical name (if any)?
  - What are its symptoms? Its cause(s)?
  - What type(s) of person(s) does the disease usually affect?
  - Can it be prevented, and if so, how?
  - How is it diagnosed? Treated? Cured?
  - What types of practitioners or other individuals are best able to prevent, diagnose, and/or treat the disease?
  - What methods are generally used by each?
  - What are the typical attitudes toward this disease and the people who have it?
  - Are there any special taboos or other beliefs connected with the disease?

- What types of accidents are common in the local area?
- Who typically has various accidents? When? Where?
- What beliefs are common concerning the causes of various types of accidents? Their prevention?
- How are various injuries treated?
- What types of physical abnormalities or deformities are common within the local area?
- What types of physical conditions do the local people consider to be abnormal or deformed?
- What do people feel may be the cause of various abnormalities or deformities?
- Do people believe various abnormalities can be prevented? If so, how?
- What types of treatment are common?
- What types of efforts are made toward rehabilitation, if any?
- What are the typical attitudes toward persons deformed or handicapped in various ways?
- Are they treated in any way differently from other members of the community?
- What are the attitudes of persons of various ages, sexes, ethnic groups, and religions about the body? About discussion of the body? About self examination?
- What areas of the body are considered private?
- What are the local attitudes about display of various parts of the body?
- Are there any taboos or restrictions on who can see woman's or man's body?
- What are the consequences of violations of the taboo?
- What remedies or rituals should follow violation of the taboo, if any?
- What are attitudes toward examination of the body by medical personnel (of various sexes, ages, statuses)?
- Do feelings of modesty make certain patients uncomfortable or embarrassed in certain medical situations?
- What might the health worker do to lessen embarrassment.

Another set of questions concerns beliefs about death and dying.

- What are local attitudes and practices surrounding dying?
- Are there any special omens or signs portending death?
- Are special measures taken to ward off death?
- Where and how do people want to die?
- Are there types of death or places one might die that are particularly feared or disliked?
- What roles do various family and community members play when various persons are dying?

- Are any special rituals or ceremonies performed when someone is dying?
- What happens when various persons die?
- What are the practices concerning mourning, preparation of the body, the funeral, and burial?
- Do they vary depending on the age, sex, religion, ethnic group, or social status of the deceased?
- Are there any later observances of the death or further rites connected with it?
- When family and/or friends receive news of a death, how do they react?
- How is grief manifested within the culture?
- What are the usual ways of dealing with grief?
- What role should a friend, health worker, etc. play in case of a death? When, if ever, does one offer condolences? What other actions may be expected?
- How do people normally feel about the subject of death?
- Are there any special taboos concerning death (mention of death or the dead, contact with the dead body, the place of death, or the deceased's possessions)?
- Are the dead believed to have any influence on those still living?
- How does (or should) beliefs about death and dying affect health program routine?
- What roles do family, friends, and others like to play during the death of a family member in a health facility?
- How may attitudes toward death affect the functioning of local health program workers?

The next set of questions concerns family and personal hygiene.

- What are people's beliefs and attitudes concerning the benefits of various hygienic practices? Their possible effect on health?
- How may living conditions and resources available in the area influence habits of personal hygiene?
- What would be the attitudes of various types of people toward possible changes in hygienic practices?
- What are local attitudes and practices concerning washing various parts of the body?
  - Washing clothes?
  - Caring for the teeth?
  - Wearing shoes?
- Are there any problems of body pests or parasites?
- What is done about them?
- Which hygienic practices promoted either by the outside health worker or the local culture seem to have a real effect on health?

Attitudes about pregnancy and childbirth are tested in the following questions.

- How does a woman determine she is pregnant?
- Do women of various groups follow any special practices during pregnancy? Follow any special taboos? Eat or not eat certain foods? Follow any rituals?
- Take any special treatments or medicines?
- Change sexual practices?
- Change work patterns?
- Are certain conditions recognized as dangerous during pregnancy? What is done about them?
- What sources of advice and care are sought during pregnancy ?

- Are certain traditional or Western health practitioners consulted by various women during pregnancy? Who are they? What do they do?
- Are there any special beliefs concerning forces (both animate and inanimate) that may have an influence on an unborn baby?
- What effects may these forces have?
- Is protection of any kind sought against forces thay may be harmful?
- What are considered abnormal signs during pregnancy? Why?
- What is done about them?
- In what settings do various women in the community give birth?
- Who is present during the delivery in each setting and what role does each person play?
- What methods of delivery are used?
- What sanitary precautions are taken?
- What methods are used to cut and treat the umbilical cord?
- What is done with the placenta?
- What is done when various complications arise?
- Are any special customs or rituals followed concerning delivery or birth?
- Are there any special attitudes toward or customs concerning twins? Multiple births?
- What is done in the case of maternal or infant death during childbirth?
- If the baby is born dead?
- Is infanticide practiced?
- In what types of cases?
- Does a child's sex make a difference?
- What are the local attitudes toward this practice?

  Questions about child care are contained in the following set.

- Do mothers follow any special practices after the birth of a child?
- Change work schedules in any way?
- Change eating habits?
- Take any special medicines?
- Perform or take part in any special rituals or ceremonies?
- Go through a period of confinement?
- How do mothers and/or other relevant persons care for infants and children of various ages?
- How are infants and children cleansed? Fed? Carried? Watched? Toilet trained? Disciplined? Taught various skills? Cared for when ill?
- What happens if the mother is working? Ill? Absent? Dead?
- Who babysits for the mother? In what circumstances?
- Are there any child care practices hazardous to the health of the child?
- How is food allocated in families where it is scarce?

  Sexual behavior is the area of concern in the following questions.

- How is knowledge concerning sex acquired by growing children?
- What is the attitude toward sex education of various types?
- How easily will various people discuss sexual topics?
- Is male or female circumcision practiced? Why? At what age?
- What methods and rituals (if any) are followed?
- Does the procedure ever cause infection or other harm to the health of those circumcised?
- What are the social and cultural beliefs and practices concerning menstruation?
- Are there any special rites, rituals, or taboos that must be observed during this period? Special measures to relieve cramps or problems of irregularity?

- What are the social and cultural beliefs and practices surrounding sexual intercourse (premarital sex play, obtaining a lover, techniques of coitus, reasons for intercourse, sexual restrictions or abstentions, extra-marital intercourse, sexual aberrations in adulthood, concealments of the sexual organs, etc.)?
- What are the social and cultural beliefs and practices surrounding conception (theories of conception, development and feeding of the fetus, determining the sex of the offspring, barrenness, and sterility, etc.)?
- How is menopause experienced within the culture?
- What are its symptoms?
- What meaning does it have?
- Are there special cures for related problems?
- What forms of homosexuality and bisexuality are common within the culture, if any? What are local attitudes toward homosexuality? Bisexuality?

CHAPTER THREE

THE SOCIOCULTURAL, PSYCHOLOGICAL, AND BEHAVIORAL FACTORS WHICH AFFECT HEALTH CARE DELIVERY

This chapter first describes the principles operating behind the sociocultural and psychological factors that affect health. An understanding of the subtle ways in which these factors function in any culture will aid in conducting a careful assessment and in planning effective primary health care delivery.

The second section of this chapter introduces a new topic: changing behavior. This section describes the principles that govern behavior. Understanding these principles will aid in doing assessments by helping to identify what behavioral factors and approaches of an existing health program or health system make it effective or ineffective.

The principles will also aid in developing and planning a health program. Any health care delivery service or even an assessment represents an intervention into and a change in their culture. This is about assessing how people deal with changes, why they accept certain programs or changes and why they do not accept others, and how to work with people and help them adapt to cultural changes that a health care program creates.

The Nature and Operations of Culture

Culture creates those social and psychological factors that influence behavior and make a people distinct. Behavior in any culture is based on a set of norms, expectations, and beliefs that are part of that culture. This section discusses the nature of culture and the way it works in the development of every person.

It has been said that we all live in a double environment; an outer layer of terrain, resources, and climate, and an inner layer of culture that mediates between the person and that external world. Culture has been variously defined as that amorphous abstraction from actual behavior that makes people distinct as a group and which is transmitted to future generations.

Tylor (1871) provides a traditional definition: "A complex whole which includes knowledge, beliefs, art, morals, laws, customs, and any other capabilities and habits acquired by man as a member of society."

The "complex whole" is more evident as: "Patterns of learned behavior and values which are shared among members of a designated group and are usually transmitted to others of their group through time." (Mead, 1953)

In the context of health there is within each culture a set of behaviors and values particularly related to health and illness. This set of norms for behavior with related beliefs, knowledge, and customs represents the sociological concept of a social institution. Health as a social institution is a very integral part of the cultural pattern. It is related to all other vital areas of human activity: communication, economic, educational, family, marriage, political, and religious.

Every culture has experienced disease, developed a set of beliefs to explain the events of disease and death, and created roles for those who are sick and those who heal. This set of norms for behavior and the accompanying belief system that represents the social institution of health in each individual is acquired through childhood socialization. How powerfully these operate can best be seen in the workings of the culture that are discussed below.

It is important to preface this discussion with two points. First, a culture exists only through the behavior of a people. Culture is mediated through people and cannot be represented by a diagram or a written description, but only by human beings who themselves embody the culture. Second, a group of people who share a common political or geographical boundary should not be assumed to share a culture. Within a society or state, a variety of very different cultures are likely to exist. Just as a variety of languages may characterize a region, it is likely that a number of cultures with distinct sets of customs and beliefs will be found within even small regions. In an attempt to reflect this reality the following discussion refers to communities as the body of people who share a culture.

Each person experiences a world that is a constructed version of reality. As a result of external sense impressions, symbols, and internal sensations, humans learn, create, and teach other humans a variety of different conceptions of the world. These are influenced by cultural traditions, by physical interactions with the environment, by statuses and roles held, and by personality. These constructions of reality are often so implicit in the experience of an individual that he or she is unaware of them although they are evident to an outsider in the various acts of thinking, evaluating, and doing.

Each person's construction of reality and their process of perception is shaped by their culture. In fact, an individual's ability to learn and think is a function of the way in which he or she perceives a situation. Failure to understand this has led to unwarranted beliefs about the lack of learning capacities of other peoples. What an outsider sees in a sequence of events that may seem instructional may differ sharply from what people from another culture see. Each person learns from a sequence as he or she perceives it.

An example of this is provided by George Foster (1973): "As a part of the health program at Cornell University's Hacienda Vicos Peruvian project, an American color film teaching the transmission of typhus by lice was shown to the Indian workers, and their families. The film was previewed by health personnel, and they felt it would be understood by the local people, who had been plagued by lice all their lives. Selected members of the Indian community received special instructions about lice and how they transmit disease, in the hope that they could further explain the problem to their fellows. At the showing the physician explained, through an interpreter, the principal facts of transmission.

A week later members of the audience were asked questions to see how effective the health education project had been. It became apparent that the message had not gotten across and that the louse as a vector was not understood. First, the viewers said they had lice but, as in the case of the fly model on the Pacific island, they had never seen giant lice like those shown on the screen so they didn't see the connection. Second, they said they had never seen sick people like those shown in the film, who had a curious and unpleasant white and rosy color. Perhaps, they speculated, this was a disease that afflicted other kinds of people, but again they saw no connection with their own problems. Finally, since they were not familiar with movies, they did not perceive the episodes in the film as a continuum, but rather as a great many odd scenes with

no visible relation to each other." (communicated by Carlos Alfaro, M.D.). (p. 145)

A demonstration of the more subtle operations of perception in learning is offered by the experiences of D'Andrade (1974). To school children in Northern Nigeria he administered a modified version of the Kohs Block Test, which is a part of the Wechler IQ battery and widely used in cross-cultural testing of intelligence. The children ranged in age from five to twelve, yet a majority could not construct the designs that a United States' child of five and a half typically can. Furthermore, the degree of success was unrelated to the children's ages. Certain investigators had concluded from similar results that West Africans lack spatial intelligence. But, D'Andrade went back and found that after brief training the Nigerian children showed the normal range of performances on the test. This led him to conclude that it was not a deficit in intelligence that made for poor performance, but instead a lack of experience with one specific method by which reality can be symbolized. The use of lines, color, and designs on paper is a common technique for the construction of reality among Westerners. As a result, they often believe that pictures, maps, and graphs are a universal language immediately understandable in any culture. When this doesn't work, a common first reaction is to downgrade the intelligence or insist on the resistance of those unfamiliar with that method of representing reality.

Another way that culture affects constructions of reality is by affecting what an individual will remember. Memory is as selective as perception. Thus as Mead (1953) recommends, "great attention must be given, in all educational efforts, to allowing for sufficient time and enough repetition so that facts which are less easy to assimilate are not lightly forgotten." (p. 301)

In the case of feeling healthy, individuals learn to evaluate and label their own experiences using both internal sensations and external information. Communities vary in their manner of segmenting the experience gradient of health and illness. The perceptions of being healthy and being ill also vary. These differences in perception are sometimes overt and explicit. For example, Tenzel (1970) while investigating beliefs about disease in a Guatemalan village, was told by the villagers that there is a special disease in which a crest of spines grows out of the sick person's head. These spines may be male or female in type and can be seen by most people when the sick person stands a certain way in the light. Tenzel was never able to see the spines even when others around him could, yet his skepticism did not shake the villagers' conviction. Those scales were seen by the people of that community.

More often, cultural constructions of health and illness are subtly at work. For example, Zborowski (1952) and Sternback and Tursky (1969) found that patients from different ethnic groups reported very different perceptions of pain for the same illnesses and for equivalent administrations of electric shock. This suggests that the symptoms (pain) associated with a physiological condition and its label vary with learned perceptual experience. In fact, Schachter (1966, 1970) has accumulated a body of research which suggests that internal sensations only acquire meaning via learning through interactions with others. Thus, a poor child or mother in any part of the world may believe that diarrhea, worms, or other intestinal disorders are a normal part of childhood and not even associate them with disease.

Since the perception of pain and the labeling of an experience as a particular disease or health state is a function of the cultural experience, it would be useful for any health worker to understand how that experience occurs. Cultural experience is transmitted through social interactions. Those interactions are shaped by belief systems which have as their base beliefs about the

purpose of human life, the nature of the world and the forces that control the world. Communities organize their beliefs about disease around these fundamental conceptions of the world.

The cultures of most developing countries view disease as the result of falling out of harmony with the world. For example, by irritating a living individual who then casts the evil eye or by annoying an ancestor or dead soul who then seeks retribution. This premise about the basic reason for disease is strongly felt as logical and as a necessary implication of their view of the entire world. That view is supported by history, tradition, custom, and their psychological well-being. The strength of these supports is important to understand and will be discussed shortly. This basic belief about the nature of disease or illness has two important behavioral consequences. One is a fatalistic attitude, an acceptance of disease and death as the will of God. Second, the preconditions of an illness and its consequences are much more salient and important to an individual than the distinctive features of an illness or how it operates in the body. The fact that one is ill means something about the character or behavior of that person.

These conceptions of disease are very different from those of the West, but they represent a very functional adjustment to the immediate situation. In most developing areas, a very low degree of mastery over nature and social conditions has been achieved. Hence, devastating natural occurrences are seen as visitations from gods or evil spirits whom man can propitiate but not control People live on bare subsistences; death and disease are common events. Thus, in Columbia when an infant dies, the parents say, "It was his destiny not to grow up." In Santander province it is often said of an unusually beautiful child, "This child is not for this world," and thus the parents prepare themselves for the 50 percent probability that the child will die (Guittierrez de Pineda, 1973).

Constructions of reality related to health and illness affect treatment as well as definitions of illness. Because of firm beliefs about causes or preconditions for certain illnesses, specific treatment modes have developed to cope with illness. Field (1973) has elaborated four analytically distinct responses (pp. 766-767) that humans have evolved to deal with illness: the magical, religious, pastoral, and medical responses.

The magical response deals with illness and death as the result of actions of spirits or witches, or supernatural forces. It tries to placate through ritualistic manipulations, and to secure favorable outcomes, particularly in the light of the aleatory element usually present in illness. Even in the modern world the magical response is never far below the surface, and emerges in cliches such as, "If you want the patient to recover, pray for him as you have never prayed before."

The religious response attributes meaning to illness and death to formulae for reconciling man to phenomena that remain mysterious to him, or that are beyond his control. A religious response to a ward of crippled children would be to maintain that, although their suffering appears manifestly unjust, it must follow a divine plan that is hidden from the ordinary mortal. The apparently senseless death of a young person raises the question, "Why?" And religion answers: "The Lord giveth, and the Lord taketh away. Blessed be the name of the Lord!" Religion is passive and accepting toward ill fortune, compared to magic, which is active and tries to manipulate supernatural beings or forces that affect human affairs.

The pastoral response provides support and reassurance to the suffering. frightened, and often psychologically regressed sick person. This response incorporates "love" and a strong fiduciary element. The mother-child relationship

is the prototype of a pastoral relationship; the hurt child who runs to his mother for comfort is, to some extent, seeking this type of response. There is little doubt that, given the nature of illness and its connotation of disability, suffering the possible death, the patient expects some degree of sympathy, empathy, and comfort from his doctor as an integral part of the doctor-patient relationship. The provision of "tender loving care" is an expression of pastoral care.

The medical response is the application of empirical or scientifically verifiable knowledge to pathological states understood in empirical, scientific terms. It emphasizes a primarily active, interventionist approach. In the modern world, the conception of illness as a natural phenomenon amenable to treatment through scientific procedures, has made Western medicine a dynamic set of social institutions. The nature of this approach is expressed by the phrase, "The doctor is doing everything possible to save the patient." The word "possible" acknowledges that modern medicine has limitations, but the optimistic bias assumes that research may find answers to most, if not all, health problems.

Societies respond to illness through a combination of these four ways. The communities within a society will even vary in the types of responses they use for certain illnesses. For example, the Mestizo population of coastal Peru and Chile roughly divide systems of medicine into two classes: scientific and popular; and diseases into five major categories: (1) Obstruction of the gastrointestinal tract, (2) Undue exposure to heat or cold, (3) Exposure to "bad" air, (4) Severe emotional upset, and (5) Contamination by ritually unclean persons.

Household remedies are appropriate for all these classes of sickness. "Scientific" doctors may be consulted, but, only for illnesses assigned to the first two categories. For the other classes, only household remedies are deemed appropriate; if these fail, a folk specialist is called. Mestizos have patronized clinics and doctors for other matters but not for maladies popularly ascribed to air, emotional upset, or ritual uncleanliness. For those disorder- it has been thought that doctors' remedies from Western medicine are ineffectual or actually harmful because the Western-trained doctor does not "know" these illnesses and does not "believe" in them. This results in an unfortunate nonuse of existent health services. For example, tuberculosis, because of similarities in symptomology, is cometimes identified as "fright" and so remains inaccessible to the medical doctor or the health center.

The beliefs and attitudes of a community which are the manifestation of a culture must be seen as having functional utility as a reflection of the world in which people live (e.g., an environment that is not controllable) and as supporting the psychological experiences of an individual. LeVine (1933) has examined human intercultural experience and has identified certain principles governing these patterns of thought and behavior. The first three propositions attest to the strength of norms of behavior and belief systems such as those related to health. LeVine's first three cross-cultural principles are presented below:

1. Some culturally distinctive patterns of thought and feeling are not readily accessible to verbal formulation or voluntary control but seem to influence the individual's decisions about regulating himself and adapting to his environment.
2. These patterns are not easily reversed even when the individual is outside the cultural environment that normally reinforces them.
3. The individual can adapt behaviorally to the demands of novel cultural environments without eliminating these patterns of thought and feeling, although their behavioral manifestations may be temporarily inhibited or situationally restricted . . .

Cultural beliefs and attitudes give continuity to an individual. They explain the world surrounding an individual and that person's purpose. These beliefs provide a way of organizing experience, understanding the world, and attributing meaning to the behavior of others (i.e., gifts, respect, insults, and care). Thus, a people will hold on to these beliefs and practices because they help each person to direct daily behavior, solve daily problems, and relate to each other. Any innovator must recognize that old beliefs and practices have real usefulness for an individual and that clinging to these is a function of their utility rather than evidence of stubborness, lack of cooperation, ignorance, or inability to learn, etc.

Any culture will include a social organization or set of customs in terms of which people cooperate. These are the means by which beliefs and attitudes are transmitted and maintained. The social organization consists of recognized roles and statuses of individuals who are accustomed to acting together for certain purposes and by certain unconscious codes. The social organizations, like the culture of which it is a part, constitutes an interrelated whole, and changes in one part of it will have repercussions in others. It is useful to have an understanding of the social organization of a community before doing an assessment or for planning. In this way one will know which individuals lead other members of the group and how social groups might be contacted to collect information and reach them in planning a service.

The discussion thus far has elaborated the psychological and social forces that maintain a culture with its accompanying beliefs and attitudes. Perhaps as a result of these supports, a necessary belief about the quality of one's culture is borne. George Foster (1973), an anthropologist who has studied a wide variety of cultures, suggests there is a universal belief among people that their own culture is superior. Indeed, he argues this is a powerful force for cultural stability.

An active belief in the superiority of one's culture or the tendency to evaluate other cultures in terms of one's own experience exclusively is known as ethnocentrism. This is a handicap with which anyone operating cross-culturally must deal. The concept of cultural relativism is the antithesis of this. That is the belief that the values and beliefs of a people are a function of their way of life and that they cannot be understood or evaluated out of context.

Ethnocentrism is deeply engrained in all of us, even when one is sensitive to the philosophy of cultural relativism it is easy to fall victim to evaluating others by our own views. Ethnocentrism has two aspects to it that are equally obstructive. First, is the transfer of cultural expectations: physicians, nurses, sanitarians, and health educators often transfer from their own cultural background their expectations of how people will behave or ought to behave in certain crises or conditions of illness. The second aspect is the belief that Western medical technologies are "correct" and should readily be accepted by people in developing nations. This attitude can only damage an innovator's reputation and arouse resistance toward suggested changes. It should be guarded against at all times. How to ward off this tendency and how to gain the cultural perspective (the emic view) of another people will be discussed in the section on cultural change.

Culture and Changing Behavior

Intervention for the elimination or prevention of illness and disease in developing countries requires changes in a culture. At least two responsibilities accompany attempts at intervention and meeting those responsibilities increases the effectiveness of any intervention. First is a sensitivity to human relations and second is to maintain the social integrity of the culture. This section

discusses how cultures change with the introduction of Western technology and how those two responsibilities can be met as health technologies are introduced. This discussion is based on the assumption, itself supported by fieldwork in technical assistance to developing nations, that a change in any one part of a culture will be accompanied by changes in other parts, and that only by relating any planning strategy for change to the central values of a culture is it possible to provide for the repercussions that will occur in other aspects of life.

In a sense, those who introduce change in any part of a culture are actually guiding cultural change. The use of sociocultural information in planning is necessary for successful cultural change. Such planning requires careful study of local needs. Those who plan interventions must be cautioned that, because all of the aspects of the life of a people are interrelated, the way to deal with a change in any one aspect of living is not necessarily to make a complete blueprint for changes in the whole life cycle. There is no available method for predicting in advance exactly how individuals will respond to changes. But, careful study of the context in which change is to occur and insightful monitoring of the impacts of change may be incorporated into planning to help predict the range of potential consequences.

People everywhere change their ways. No generation behaves precisely like a former generation even in the absence of planned or technical change. Language, tools, ways of growing crops, methods of curing, and patterns of leadership change in every culture. Rates of change vary, but the outstanding fact of constant change remains. Thus, resistance to change can be seen as a symptom of something wrong in an attempt to induce change. The resistance could be the result of the impracticality of the change or unsatisfactory communication of the change, but most importantly resistance should be seen as a symptom of special conditions rather than as a constant element.

Change as a result of technical or informational intervention occurs through people just as culture change is mediated through people. Any significant change in the lives of people introduces some degree of instability or disharmony. The degree of disharmony will vary with the age, status, and personality of individuals, but it will occur in the way daily activities, beliefs, attitudes, and goals are organized. Mead (1953) has characterized such instability with the psychological term, "emotional tension." The psychological literature and theory on tension of this type is useful in understanding the consequences of change.

Such tension results from significant change either because old behavior is found to be inadequate or unacceptable or because new behavior must be acquired. In the case of health, the old way of treating illness, calling in a shaman or invoking home remedies, is challenged. The old way and the beliefs about illness this incorporated are part of the essential beliefs of an individual; their inadequacy may be perceived as an attack on the whole set of beliefs. Even if an individual is willing to give up old behaviors for new ones, a state of tension will exist until the old behaviors are unlearned.

Dissipation of these tensions may take a long time and may not be successful. If the dissipation is unsuccessful, the individual remains in an unstable and potentially frustrated position. A common response to frustration is that the individual returns to the old behaviors that were abandoned. But, most often the old behaviors are no longer satisfying. Mead (1953) offers the example of the illiterate who attempts to learn to read, fails, and is much less satisfied than the peasant for whom learning to read was never considered a possibility, or even a suitable activity. In the health realm, traditional healers on whom change is imposed without their involvement are likely to feel

very strongly the threat and frustration described here. A likely reaction would be to strengthen ties with the community and, in effect, sabotage any health intervention. Definite methods of involving traditional healers in planning change and intervention should be considered.

Generally, even when changes in an individual's life are very painful to achieve, a desire to change leads to more successful resolution of tensions. How to create that desire for change will be discussed in a later section. Procedures that deal with the recognized difficulties and tensions should be incorporated into a program along with personnel who have been sensitized to the kinds of problems the people will have in accepting change. The primary health worker can offer insight and guidance with these problems.

Frustration is created when desired goals are blocked. Usually this leads to an increase in energy, a reexamination of the situation, and a behavior that attempts to circumvent or remove the obstacle. The stimulation of needs, desires, and expectations among people who never felt such needs or had such expectations can create instability and disharmony. If means are not available for fulfilling those desires and expectations, persistent frustration is very likely. But, if the means are available, then the created frustrations can become the basis for new, desired and self-perpetuating behaviors. That is, if education and leadership are used to help the people understand and use those means. If the desire to be without some illnesses or to have food or new machinery is created, and then because of priorities or poverty or lack of personnel the desire cannot be realized, antagonistic frustration is to be expected.

There are clear dangers in this. In many Western nations the desire for longevity has resulted in millions of people with the medical care to keep them alive, but no way of making these later years of life meaningful. Thus, frustration exists among the aged. The danger of cultivating such felt needs, which are unrealizable under existing conditions, can be diminished by careful planning and cautious assessments of what is immediately feasible.

Needs can also be felt too intensely and interfere with progress toward the goal. People can be so highly motivated that, in the rush to achieve a change, the assimilation is harmful or disruptive to the social relations, beliefs, and attitudes of the people. When frustration persists and is intensified, negative consequences result. These consequences reduce the individual's tension in many cases, but, the mentally healthy functioning of the personality and the individual's adjustment to society are disrupted. Of the many possible consequences of extreme frustration, the following are important in understanding an individual's reactions to health programs and the process of assessment.

As a result of frustration, people may exhibit various kinds of behaviors. For instance, an individual's behavior may become more childlike, less mature; feelings and emotions will be more poorly controlled or new forms of dependency may develop. This is called regression.

The accumulated tension may find expression in aggression, such as feelings of anger and rage, actual physical violence, verbal attacks, slander, and denunciation. This aggressive behavior rarely dissipates the tension; it may, instead, lead to more aggression. The objects of such aggression are often not the cause of the frustrating situation. Instead, because of fear of possible sanctions, the individual may displace the frustration energy and aggress against more vulnerable objects (e.g., family members) often unassociated with the frustrating situation or agent.

Withdrawal is another reaction. The individual may withdraw psychologically or physically from the frustrating situation. Withdrawal may be into apathy or substitute activities like alcoholism, drug abuse, gambling, nativistic

cults in which the former state is acted out symbolically. Mead (1953) cites the example of adolescents who were energetic and highly motivated but suddenly ceased to be able to learn and so gave rise to myths about the inability of peoples newly exposed to modern technology to learn the new knowledge.

The return to old forms of behavior are now not satisfactory, so resentment and harbored anger result. This may lead to defensive behavior that stands in the way of change. Village people who ignored or refused the changes that took place in a larger town may actively combat them despite the advantages they would offer.

The individual may also reduce tension by preventing the occurrence of a reaction. Then the unresolved tensions find expression in diverse ways, such as chronic fatigue, preoccupation with one's state of health, new activities that are socially approved, compulsive ritual, redefinition of the situation that is more acceptable to oneself, assigning blame for the situation to others, or retreat into endless thinking about the situation without any attempt to check the thoughts with reality.

Each of these reactions to frustration serves a function. It reduces the tension, or vents it, or allows the individual to avoid it. Analysing the function or purpose of the reaction will aid in responding to it. The negative feelings and tensions which are some of the psychological consequences of frustration can become associated with a particular program, an innovation, an agency, or a particular person. For example, in many rural areas there is a persistent suspicion and dislike towards the government and government-paid individuals because of past frustrations with government programs. These antagonistic feelings, based perhaps on unfounded beliefs, misperceptions, or tradition, are viable forces to be aware of and to affect in planning any intervention.

To successfully design or assess a health service or program, the change it has created must be examined from the point of view of the individuals who are exposed to it. The anthropological literature refers to this as the emic view, whereas the outsiders have an edic view of people's lives. Agents of change, the planners, teachers, and medical personnel, must all realize that their own behavior, their perceptions, beliefs, and attitudes are not universal. Their ways of counting, judging behavior, reckoning time, assessing good and bad, expressing enthusiasm, disgust or pain are also learned and traditional. Their own ways must objectively be considered as bias in order to curb their own ethnocentrism and to understand the reality of another people.

As Margaret Mead (1953) suggests: "Where a change may seem to the expert to be merely a better way of feeding cattle, or of disposing of waste, to the people it may seem to be a rejection of the commands of the gods, or a way of giving their welfare and safety into the hands of sorcerers. An "improved" form of house may also be a house without the proper magical screens to baffle the demons who may enter and make one ill. Substitution of a more or less destructible cooking pot may be seen as lowering the value of a bride because of a change in the cost of her dowry. It is, therefore, useful always to ask: How does this change look to those whom it will directly and indirectly affect." (p. 287)

The traditions and beliefs that a culture perpetuates are not blinders that keep individuals from seeing advantages in changing their behavior. In most cases where people are given adequate opportunities to measure the advantages and effectivenss of a new alternative, that alternative is adopted. In many cases new practices are added while traditional beliefs and activities are retained. A modern treatment of an illness may be acceptable to the people as long as they are able to use their explanation of why the illness occurred and why it has been relieved.

How to Produce Responsible Change

In many developing areas of the world, rural peoples are increasingly in touch with urban areas, through radio and television, relatives who have migrated to the city or traveled, and improved education in their own villages. These influences introduce new information about ways of living, work, and the quality of life. Yet, miserable living conditions (from the viewpoint of industrial nations) and awareness of other possibilities, do not of themselves make technical or medical improvements acceptable. Over and over again, fieldwork has shown that attempts to remedy these situations through knowledge and logic (that of the agents of change) do not work. These failures can be understood if it is recognized that Western logical interpretation and explanations are ineffective because their application is blocked by the emotional satisfaction which the people receive through their present behavior. The one consistent finding from fieldwork reflects this point.

Foster (1973) expresses the finding in this way: "People are pragmatic; once convinced that old ways are less desirable than new ways, there are few individuals who will not make major changes in their behavior. With perceived opportunity and supportive conditions that make realization of success a reasonable hope, social, cultural, and psychological barriers can weaken or dissolve in remarkably short order." (p. 148)

The key phrase in this finding is "once convinced that old ways are less desirable than new." How to accomplish that convincing is the question. The logical or argumentative mode that appears sensible to the Western or often the Western trained agent of change is ineffective. In order to convince someone that a behavior or practice is less desirable, one must understand how desirable the old way is and why it is desirable. An understanding of a community's culture and social relations is the foundation for this. However, one of the hazards is that too much effort is placed on looking for explanations inside the person. People are said to act as they do because of their feelings, states of mind, intentions, purposes, and plans. These may seem to be impossible to change.

The scientific study of human behavior has led to an important principle regarding the actual causes of behavior. The environment has produced the genetic endowment of humans which makes our biological machine susceptible to (or desirous of) certain things which produce satisfaction. For example, a certain quantity of water, a specific basic assortment of nutrients and caloric potential, a level of temperature and air pressure, etc. The environment, which includes other people, also provides a range of consequences for behavior that provide satisfaction for people. People behave in order to gain these positive consequences and they avoid behaviors which provide what they consider to be negative consequences. An attitude toward a behavior, let's say a preference or liking, only represents an inclination to do something because it has been associated with bringing about positive consequences. Thus, an effective way to encourage the learning of new behaviors and attitudes is by consistent prompt attachment of some form of satisfaction to that behavior.

One must know what is satisfying or a reward for a people. This is a complex matter that requires careful observation of a people to understand how they value rewards. For example, in a traditional rural society in which the image of limited good (the notion that all people should have an equal and therefore limited share of good things in life) predominates, rewards such as wealth or an emphasis on competition would be totally ineffective. Fellow villagers would resent and be angry toward individuals who received the rewards.

Dube (1958) describes a cattle show in which substantial and useful prizes created interest, and the judging was entirely fair, but many people

were disappointed: "Some felt that all villages entering cattle in the show should have been rewarded in some way or the other for their cooperation: a village would not lose face if even one of its residents got a prize. In one case it was found that the leaders of the village which had secured a large number of prizes were half apologetic, for their very success was viewed by others as a mark of selfishness." (p. 117)

The rewards or types of satisfaction that people are accustomed to are a reflection of their belief system. A people who believe that the wrath of a spirit or a dead ancestor can cause them hardship and illness, will consider reconciliation with that spirit or ancestor to be a very important positive consequence. This is an outcome often unrelated to curing physical ailments by practitioners of Western medicine, so people still wish to visit a shaman or local healer to be assured that reconciliation occurs.

Rewards may take the form of consistent praise, private approval, privilege, improved social status, strengthened integration within one's group, or material reward. Rewards are particularly important when the behavior change will not itself produce advantages for some time or when the advantages could be attributed to something else. For example, it takes months or years to appreciate a change in nutrition or a change in hygiene patterns or innoculation that only prevents negative consequences and that may not be perceived as a reward. Whenever there is a gap between the new behavior and results, another reward has to be used to reinforce the behavior. The pleasure of belonging to a new social group or the admiration of others can provide immediate rewards.

It is evident that rewards which are used must be those that are already potent in the community. Behavior changes then occur in an environment of satisfaction and one that is less foreign. As people gain pleasure from the new behaviors, positive attitudes or inclinations toward the behaviors accompany the change. As such changes occur, there is more readiness to accept new facts because they are identified with a situation in which satisfaction has been experienced. Beliefs, knowledge, faith, and opinions then change as the people involved are able to examine the new facts.

It has been observed that the process of acceptance of change is more rapid if simultaneously the old behaviors go unrewarded or meet with disapproval or some other negative consequence. In psychological jargon this is called a punishment, but, it is not suggested that actual punishment, in the sense that an individual in authority metes out punishment to other persons, is an effective way of introducing change. An effective punishment occurs when after behaving in some fashion a person feels dissatisfied, or unhappy, or rejected by a group whose approval he or she seeks, etc. One should be careful because severe punishment can create an intense emotional disturbance that blocks the desired new behavior. For example: "A public health nurse had been attempting to persuade a group of Mexican immigrant mothers in the United States to abandon their customary diet, and to feed their babies milk. She had been violently condemning their traditional diet, but finally, when she discovered that she was making no progress, she suggested that they feed their babies the water in which their beans were cooked. The babies began to thrive, and when the nurse later pointed out to the mothers the supposed effects of the bean water, they replied: "Oh, but we are feeding them milk now too. We have followed your advice about the milk ever since you stopped calling all of our own food bad." (Spicer, 1952)

When the effect of a punishing situation is only intense emotional disturbance, punishment may actually tend to stamp in deeper the undesired behavior. The satisfactions which are attached to an old behavior or to a new behavior may ever be unintentional. In many cases a person will be unaware

of their relation to the behavior. The learning that comes from satisfaction goes on unconsciously and occurs in all people. The satisfaction increases the likelihood that the individual will repeat the rewarded behavior (verbal, attitudinal, or actual) although he or she may not even know that.

It is important to realize that this method of facilitating new learning can be abused. It can be used to associate fear with certain behavior or symptoms. Also, it can be used to create unrealistic or harmful expectations, leading people to associate unavailable or expensive products and activities with important rewards like prestige, acceptance, or religious sanction. The strongest safeguard against an undesirable use of these psychological principles is in leaving the new learning in the hands of the people, relying on community participation and helping them to develop means of making new behaviors rewarding and the old ways unrewarding. In this way, the dangers of exploitation are minimized.

Since there may not be an awareness of the rewards that go along with a behavior, how does one come to know what rewards are potent among a certain group of people? Rewards are the basis for existent behavior. Those behaviors that are repeated frequently have a reward associated with them. Careful observation of the environment in which people behave can lead to understanding what rewards are offered. These rewards can then be used for new behaviors. Additionally, those behaviors which occur most frequently, like being with a social group, become so strongly associated with their rewards (approval, sympathy, liking, and relaxation) that the activity itself comes to act as a reward. Thus, by associating an activity with a new behavior, one can accomplish successful change. For example, creating the space and an opportunity for a social hour in a clinic waiting room or at a clean laundry water source in order to get local people to use those facilities more frequently.

The recommendation for careful observation to understand the reward structure in a community should also apply to the innovator and the technical change or intervention. In selecting and planning the introduction of an intervention, all of the cultural associations, rationalizations, and habits that accompany these in Western society should be examined and discarded. Along with this, should be an analysis of the rewards offered in the West and those that were used to support the intervention's use in industrial nations. Most often these are irrelevant and can only be barriers to the successful introduction of an intervention to a new culture. As a result, a technology is stripped to its core.

Mead offers this example: "Instead of saying that in order to train a public health nurse we must first have an elementary school system patterned on the school system of the West — in which children will be rebuked and rewarded for the same sort of mistakes, learn to read the same kinds of directions, learn to fear the same kinds of errors in arithmetic and to hate the same kinds of tasks — we may experiment with how to teach particular practices to the most educated young adults we can find.

"Instead of bringing beginners from the countries wishing to introduce new public health practices, to learn a pattern in a country with more developed practice, we can bring more mature students who will participate — sometimes with the help of seniors who have worked as foreigners in their country and with representatives from other countries with different types of practice — in making a new pattern which is congenial and meaningful to them, as representatives of their own culture." (1953, p. 310)

One advantage to identifying the core of a technology is that time honored habits and practices are removed; then, the experts need constructive thinking by members of the culture in which they work to decide how to provide

the technology. Usually the culturally workable solution can only be found with the help of the community and through experimenting. If a dispensary doesn't have walls, what does it look like? If the personnel don't have to have conventional education, what experience or training do they need? Obviously, a sensitive attention to the ways in which existing agencies and techniques are woven into the social and cultural fabric will provide useful information in planning.

Novelty and the opportunity to play are rewards that operate subtly but powerfully, as this recollection from East Bengal in 1955 by Foster (1973) demonstrates: "In one village to which I was taken nearly 80 percent of the families had built bore-hole latrines, all within the space of several weeks. I asked the American technician how he explained this. He believed that it was because the health lectures given by his Bengali associates had been carefully worked out, and the people had listened with care and been convinced of the desirability of building latrines. Since such success had never before occurred in any environmental sanitation program with which I was familiar, it seemed likely other factors were present. Investigation proved this to be true. In this part of East Bengal there is a thick covering of rich alluvial soil, which permits the use of an auger for drilling the latrine pit. Four men can bore through as much as 20 feet of this soil in an hour or so, and the results are little short of miraculous. It turned out that the villagers were enchanted with this marvelous new tool, and all wanted to try their hand at it. They felt that the concrete perforated slab they had to buy to cap the hole was a small price to pay to enjoy an hour or two with this wonderful new toy. Competition between groups of men was informally organized, and records were set and broken in rapid succession. For several weeks this was undoubtedly the happiest village in the country. And, at the end of the time, a good job of environmental sanitation had been done—but not for the reason the health team thought!" (pp. 162-163)

Acceptance from others is another powerful and immediate reward that often goes unrecognized. Agents of change develop friendships among people that carry great weight in many traditional cultures. Friendship is considered based on a "spirit of contract;" it is the free association with a person of one's choice, implying mutual liking and mutual service. Thus, in asking villagers in India why they had accepted certain community-development projects, a frequent answer was, "to please the village-level worker." The villagers were not necessarily convinced of the utility of the action but they wanted to please and receive the continued acceptance and liking of the village-level worker. The same reward was important enough for seven of the eleven housewives in the village of Los Molinos who heeded the advice of their health educator, Nelida, and decided to boil drinking water regularly (Wellin, 1955).

Prestige, competition, religion, and economic gain are other types of rewards that have been useful in technical change. However, the importance of selecting rewards that are already present in the culture must be stressed. Through careful observation and the use of consistent prompt rewards in forms that are already in existence among a people, the integrity of the culture can be maintained. The culture and its social relations will slowly evolve as new behaviors are adopted, new facts are accepted, and different outlooks develop. In this way the cultural heritage will shape the changes. The cultural heritage also offers obstacles.

Assessment Questions to Consider

Some of the following questions have been adapted from Brownlee (1978). The first set of questions deals with understanding the psychological and sociocultural make-up of a community.

- What is the history of the community?
- Where does their culture come from?
- What is the basic world view?
- How was the earth created and who or what maintains the earth and all power within it?
- To what extent is the world view influenced by religion?
- What are the major religious groups in the community?
- Are there certain religious groups that may be difficult to identify because they operate in secret?
- For each religious group:
  - How is it organized
  - Who are its members within the community?
  - The size of membership?
  - Requirements for membership?
  - Social characteristics of the members? (sex, age, social class, etc.)?
- Who are the leaders of the religious groups within the community?
- What roles do they play within their religious group and the wider community?
- What are the religious group's general beliefs, values, and practices?
- Does the religion have any organized theology?
- What role does the religious group lay in overall community life?
- What is the general history of the religious group and its role in the community?
- How do the various religious groups relate to each other?
- What conflicts exist?
- Areas of cooperation?
- How much overlap is there between the systems of religion and medicine within the community?
- What involvement do various religious groups and their leaders have in the area of health and illness?
- Does the religious group hold special beliefs concerning what or who causes various illnesses and whether and how these illnesses can be prevented, diagnosed, or treated?
- The cause(s) of death and whether and how death might be prevented?
- Do any of the leaders or followers in the religious group play roles in the prevention, diagnosis, and/or treatment of illness?
- How do the religious groups in the community affect the secular practice of medicine?
- How do they affect the health beliefs and practices of their followers?
- How do they affect the utilization of health care facilities?
- How do they affect the organization and practice of medical care?
- Do any of the beliefs and practices of various religious groups conflict with the philosophy or procedures of the health program?
- Should any special effort be made to discourage religious beliefs or practices that may be detrimental to health?
- Do any of the religious beliefs and practices of various religious groups complement each other?
- What rituals and ceremonies are observed by each religious group in the community?

- Are there religious rituals or ceremonies marking stages in the life cycle such as birth, entrance into adulthood, marriage, and death?
- Are there certain general rituals or ceremonies observed by all or part of the religious community?
- What are the major events in the "church calendar?"
- Who participates and how?
- Do some of these rituals or ceremonies affect the health or health care of the religious group's members?
- How could the operation of the health program be adapted to take account of important rituals and the needs of patients or other community members participating in them?
- Is the health program or other health facilities operated or strongly influenced by certain religious groups?
- To what extent does religious affiliation influence the type of care given? To what extent does religious affiliation affect what type of clientele will use a particular facility?
- What is the attitude of the government and local community toward religiously affiliated health facilities?
- Do governmental and community attitudes affect the delivery of health care in these organizations?
- What is the religious background and/or current religious affiliation of health program workers?
- How does it influence their work?
- Are there religious obligations that may interfere with a health worker's job?
- Are there religious attitudes that may influence the care a worker gives patients?
- Should any adaptations be made within the health program to accommodate religious obligations, beliefs, and practices of the health workers themselves?
- What are the current relationships between various health workers and religious leaders and healers?
- Could these relationships be improved?
- Could (and should) various religious leaders and healers be involved in health program activities? Would they be willing to use their influence in ways that might benefit the health program?
- Are there any current conflicts between religious groups that would affect how the health program should relate to various religious leaders and their groups?

A second set of questions in this area concerns understanding behavioral factors.

- What indications may the people give of fear, pain, discomfort, etc.?
- How do patients' and community members' nonverbal gestures, their facial and body expressions, vary from those to which health workers are accustomed?
- What is the meaning of silence in various situations?
- How is one expected to act in various types of silence?
- How do members of the culture typically use their language when trying to persuade or explain things to others?
- Do they use logical explanations, stories, or proverbs? Hold debates? Appeal to certain values?
- Could the health worker use similar techniques when communicating with patients or other community members?

- How can health-related explanations be adapted so they will be related to things people are familiar with in daily life?
- How does one show disapproval? Disagreement? Frustration? Is direct criticism and complaint accepted within the culture?
- If not, what ways are culturally accepted for expressing negative feelings?
- How is affection displayed? Anger, embarrassment, and other emotions shown?
- When can various emotions be displayed and with whom?
- What are the cultural norms concerning raised voices, arguments, sarcasm, swearing, expression of humor, etc.?
- How are "calls for help" (especially medical help) made within the culture?
- What signs (besides the verbal ones) do people give when they feel they need treatment?

Understanding your role as the investigator is the subject of the following questions.

- What are your own attitudes, beliefs, and practices concerning health, illness, and medical care? (Answer for yourself and your culture the questions that have been posed in this manual.)
- Examine your beliefs and practices. Which seem scientifically justified and which seem simply a part of your "cultural baggage" and not useful or desirable within the local culture?
- What areas of agreement and disagreement can you find between your attitudes, beliefs, and practices and those of other health program workers or community members and patients?
- Do certain areas of disagreement or conflict cause problems within the program?
- These same questions should be applicable to nationals and administrators. Ultimately we must ask how should change take place?
- Is the culture one in which things are changing fast, or one in which things pretty much stay the same?
- Has the rate of change varied in recent times?
- What is the culture's view concerning the desirability of change?
- Are the people change oriented, or do they tend to be conservative and tradition-minded?
- How is the general orientation toward change likely to affect efforts to promote changes in health beliefs and practices?
- What changes in health beliefs and practices do the people themselves want?
- What beliefs and practices in the health area are beneficial to health? Have no effect on health? Are harmful to health? Should harmful beliefs and practices be changed?
- What are the functions of various health beliefs and practices?
- How are various beliefs and practices linked to one another?
- What meaning do they have to those who practice them?
- Do the individual beliefs and practices link together to form a meaningful whole?
- Are suggestions for changing of certain health beliefs and practices realistic, considering the total situation? The place of the belief or practice within the culture?
- What effects or repercussions may certain changes in health beliefs and practices have in other areas of life?

- When proposing changes in health beliefs and practices, is it possible to develop innovations that fit in easily with the existing culture? Emphasize continuity with old traditions?
- If certain health beliefs and practices are influenced by religion, will this affect the ease with which they might be changed?
- What changes might be expected in the organization and influence of various religious groups in the community?
- What might be the effect of these changes on health and health care?

CHAPTER FOUR

THE FUNDAMENTALS OF AN ASSESSMENT

Any assessment of the sociocultural, psychological, and behavioral factors that impact on the health sector will be complex. However, if the assessment is carefully geared toward finding answers to specific questions and if those questions are clearly related to the ultimate goals of the assessment, it will be useful.

When one enters a society or a culture that is different from one's own, many pieces of information bombard an individual. All of that information could be viewed as pieces of a puzzle that must be examined from different angles or viewpoints and carefully placed in their appropriate places in the entire scheme. Developing that complete overview takes time and careful attention.

The assessment itself can serve as a guiding device for developing the overview. In this section a framework or skeletal outline of an assessment is provided. The framework is organized into seven stages which generally correspond to the chronological order in which one would accomplish an assessment. It suggests certain purposes that should be accomplished at each stage. The purposes suggest the types of questions and activities in which the investigator might engage during the assessment and in preparation for the assessment. It should be noted that this is only a framework offered to give the investigator some foresight and flavor for the entire assessment process. Each assessment will require deviations from and additions to what is suggested here.

The stages for a successful assessment are listed below:

Stage 1 - Analysis of National Policy and Political Situation.
Stage 2 - Identification of Non-Health Oriented Organizations and Their Impacts.
Stage 3 - Review and Evaluation of Past Programs.
Stage 4 - Problem Identification and Definition.
Stage 5 - Description and Evaluation of Regional and Population Differences in Sociocultural, Psychological, and Behavioral Factors.
Stage 6 - Identification and Evaluation of Leadership Resources at Regional and National Levels.
Stage 7 - Planning and Strategy Development

Although these stages for an assessment are presented in a typical chronological order, there are necessary overlaps. Typically, investigators are first briefed in the capital of a nation by government and ministry officials. At this point the investigator is able to ask for certain information and available data. At the same time, he or she can carefully analyze the policies and data provided as well as the attitudes and official or unofficial guidance being offered. But, some of the information gained in these earlier stages will be substantiated, negated, clarified, or completed by experiences during the last stages of the assessment.

The assessment process is essentially one of discovery. New facts, perspectives, and insights will occur throughout an assessment. The useful integration of those elements is the responsibility of the investigator.

Stage 1 - Analysis of National Policy and Political Situation

- Identification and evaluation of all national policy objectives that influence the health sector. This should include future five-year programs and projections.
- Identification of the political reasons for these policies and the ultimate goals of the national government.
- Analysis of the role of the Ministry of Health (and the roles of the administrators) in the government structure and the priority setting process that occurs in the setting of health policies.
- Analysis of factors which have influenced health sector decisions of the past and present both outside of the Ministry and within it.
- Description of the decision-making process in the health sector (Ministries, etc.).
- Description of the bureaucratic processes and their effects on implementation of health sector programs.

Stage 2 - Identification of Non-Health Oriented Organizations and Their Impacts

- Identification of aspects of other sectors which influence health or health policy and estimate the extent of impact (agribusiness, industry, religious institutions, etc.).
- Identification of health program impacts on other sectors; estimates of benefits or negative consequences of impacts.

Stage 3 - Review and Evaluation of Past Health Programs

- Description of past programs and funding levels.
- Identification of the effectiveness of past programs by areas and populations served.
- Determination of attitudes toward those programs held by government officials.
- Analysis of reasons for failure or closing of programs and bottlenecks to improving services.
- Description and analysis of program successes.

Stage 4 - Problem Identification and Definition

- Determination of what programs are currently funded and by whom; analysis of the effectiveness of these programs as seen by government officials.
- Determination of the available data on acceptability and usage of current programs by areas (rural, periurban, urban, etc.) and by groups (ethnic, religious, socioeconomic, etc.).
- Analysis of the validity and accuracy of available data.
- Determination of access points for additional data or data collection (i.e., from local universities, other funding agencies, and others engaged in field research).
- Identification of resources available and resource constraints.
- Description of health education programs by areas and evaluation of their effectiveness.

Stage 5 - Description and Evaluation of Regional and Population Differences in Sociocultural, Psychological, and Behavioral Factors

- Identification of political and cultural regions, the bureaucratic structures within and policies toward each region.

- Identification of the potentially differing health needs and priorities of the peoples within each region.
- Description of the attitudinal, behavioral, and cultural systems operating among the peoples in each region.
- Description of the current target groups of existing or planned health programs and the projected impact of the programs on target and non-target groups.
- Description of the current non-target groups and their health needs and health practices.
- Identification of community and family personal hygiene practices.

Stage 6 - Identification and Evaluation of Leadership Resources at Regional and National Levels

- Resources in communities and various levels of government, i.e.: medical, indigenous healers and traditional practitioners, government officials and community elders.
- Effectiveness of the above resources among both target and non-target groups.

State 7 - Planning and Strategy Development

- Compilation of data from the preceding steps.
- Elaboration and analysis of alternative health programs (including health education) and program mixes for particular areas and target groups.
- Analysis of proposed and on-going evaluation programs to determine the effectiveness of existing and new programs.
- Determination of required program activities and estimates of resources required to implement the proposed programs.
- Identification of funding estimates for potential donor inputs toward particular target opportunities.

The elements of a health sector assessment elaborated here require a careful overview on the part of the individual doing an assessment. Stages 1, 2, and 3 are suggested as an opportunity for the investigator to understand the motivations and attitudes that underlie the policies and decisions made by the central and regional governments and members of the Ministries. Understanding these basic elements will also aid in making more accurate assessment of two things: the validity and accuracy of any available data on the impact of current and past health programs, and the acceptability of certain program or funding recommendations.

Frequently, those holding government positions in LDC's have been trained in Western institutions in Europe or the U.S. As a result, sometimes these individuals adopt a Western perspective and lose the immediate knowledge of their people's real needs. Additionally, these people may come away from the West with a strong belief in Western methods and a desire to emulate Western approaches. Obviously, these factors can bias those government officials. Therefore, the background and training of particularly influential individuals would be important to know.

The information required to complete steps 1 to 3 may not be gained through quantitative methods. Surveys of opinions and attitudes are likely to result in stock statements. Personal interviews, official meetings, careful observation and listening are more useful in obtaining this information and allowing one to read betwen the lines. Stages 4, 5, 6, and 7 are more likely to require standard research methods both quantitative and qualitative.

Stages 4 through 7 and the information they result in are most likely to form the substance of a health sector assessment of sociocultural factors affecting health care delivery in a developing nation. The information needed for these stages should be obtained with both qualitative and quantitative methods. These methods are described in detail in another section of this manual.

Data Collection Personnel

One concern of those conducting these assessments is whether to rely upon local investigative teams from within the host government or a local university for data collection. There are advantages and disadvantages to this approach as well as ways to minimize those disadvantages. Some of the reasons these local people can be useful in data collection are their:

Familiarity with local language and customs.
Familiarity with local community and political leadership.
Knowledge of health practices, family hygiene and health related rituals.
Familiarity with the countryside and regional health needs.
Ability to gain cooperation and easy communication with local people.
Ability to assess the validity and accuracy of any available data.

However, there are several factors that may limit the effectiveness of these people in data collection activities and which could prove disadvantageous for an assessment. These potentially limiting factors include:

A Western bias due to training or exposure to cultures of developed Western nations.
Preconceived conclusions or goals to be met by the data yet to be collected. Their experience within the nation may have led some nationals to strong conclusions about what is needed for the people, and this bias could severely limit the validity and utility of data collection.
Subtle biases or prejudices toward regions or subgroups of the population. Such bias could operate from the side of the individuals collecting the data as well as from those people being sampled.

Listed here are some suggested ways of ascertaining and evaluating these limitations.

- Review any available current or past reports written by the people or institution whose services are being considered.
- In informal discussions, ask them to describe their analysis of the health needs of the country and their suggested solutions. Assess the commitment they have to these ideas.
- Evaluate the validity of their conclusions or the data they have recently collected by visiting the people who were investigated.
- Interview community leadership about conclusions or recommendations from the data.

The decision whether or not to use nationals from a local institution must be made at each assessment. A careful evaluation of the advantages and limitations must be considered. Data collection should also include the use of local people within the regions or communities sampled during an assessment. These people (if properly selected and trained) will have an intimate knowledge of the customs and familiarity with the people that could provide the same advantages offered by personnel from a national institution. All of these elements must be weighed.

Regardless of the people selected to aid in data collection for an assessment, the investigator will find it useful to be able to openly discuss the purposes of the assessment with persons who are very closely in touch with the needs of the people. This will require traveling to the outermost regions, visiting outposts that are rarely used, visiting communities unaffected by current health programs, as well as site visits to existing or past programs.

Six Universal Elements of Primary Health Care to Consider in an Assessment

Health care delivery throughout the world takes many forms. However, there are certain consistencies in effective health care delivery programs that should be looked for and considered in the assessment of or planning for health care delivery. In this section these universal elements or considerations are elaborated. The elements have been derived from a review of the goals, methods and results of various health care delivery programs throughout the world.

The first universal element involves the nature of expected and ongoing changes in health care. In conducting an assessment it is necessary to understand how any changes in health care delivery systems are viewed at the national level. There are certain assumptions which shape different types of change. Changes in health care delivery services fall into three overlapping categories which are listed here with countries that provide examples of these changes:

1. National change (China, Tanzania, Cuba)
2. Extensions of the existing system (Venezuela, Niger, Iran, Costa Rica, Bangladesh)
3. Local community development (India, Egypt, Guatemala, Indonesia)

To affect national change, a national political decision is required. It is usually not only related to health but includes health among the rights of all people within a society. In some cases, the decision is part of an overall political ideology. That ideology will direct the services and the ways in which they are supported. There are many advantages to having the initial step be a political one. The statement of a national priority mobilizes effort and resources in a new direction. A benefit of establishing a national priority is in the increased ability to reorient resources quickly in direct relation to national goals which usually udnerscore the needs of the underserved rural populations.

In countries that extend their existing health systems there are different goals and assumptions. It is usually accepted that there are large populations underserved in respect to health, and that a national effort is required to provide them with services even if different delivery methods need to be evolved to do this. Key persons in each country consider some of the alternative methods used elsewhere and then evolve a national, individual solution. There are no prior assumptions that the application of this solution will be coupled with a change in the society itself or that the existing health services need to be adapted also. It is even considered possible that the rural primary health care methods adopted might be temporary or interim ones, and that at some future time the country will be served by a single system with characteristics approaching those at present existing in the cities.

In health care delivery services where changes are based on local efforts, there is not only a difference in scale but also a difference in objective. Rarely are the health services (in contradistinction to health) the first priority and yet each leader may enter his community with the intention of providing a direct health service. No decisions are made at the political or administrative level to change either the goals or the social order of the society, and all the project leaders usually feel that the development successes are completely consistent with and in support of the existing national goals. Most programs have an interface with the government health serivces and with other sectors. The new developments are considered to be what the people want both in priorities and in the manner of delivery.

There is no way to evaluate which of these approaches is most effective, cheaper, quicker or more acceptable. However, in doing an assessment one

should be aware of all the subtle implications behind the type of changes being requested and those that have been accomplished.

Universal element #2 concerns a health care system that already exists. In all societies, even those crippled by disease and illness, there is a viable health system. Before any changes begin there is always something or someone dealing with primary health care. The people have some explanations for sickness and death, there are people who help the sick, babies are delivered, people obtain water and rid themselves of waste whether there are formal organizations for those purposes or not.

The indigenous or non-Western health systems range from those in which a wise person in the community is asked by the sick for advice or healing to the long-established complexes of knowledge and experience typified by those in China and India. Some of these systems, which have their own strengths, may be fragmentary and ineffective in terms of their effect on morbidity and mortality.

These indigenous health systems can be seen as competitive with the Western mode of modern health care. They represent "traditional" health systems in the true sense of traditional. The health system is part of the cultural continuity in social attitudes and beliefs. And, adoption of a modern system of medicine requires some change in practices and beliefs about health that challenge the traditional health system and the cultural continuity of which it is a part. Traditional health systems are potent competitors. Their power and success are not necessarily based on their effects on ameliorating disease and providing for health. But, these health systems are ingrained and are supported by tradition and culture. Thus, it is not surprising that they provide very effective therapy for some types of psychosomatic, psychophysiological, and psychosocial disorders.

Most effective new systems of primary health care are either linked with the indigenous system or attempt to play a role having some of the same social qualities that the existing system has. In this way the new does not win over the old or destroy it, but instead it achieves an adjustment that has some new qualities and techniques while it provides a link between the present and the past.

An assessment of the current health care system in an LDC should include all existing data on government sponsored and individual community health services. For the purposes of evaluating needs and alternative methods of providing health care, a basic knowledge of the culture should include the following:

A clear understanding of the current set of beliefs about the nature of disease and health held by each community or region.

An understanding of the treatment methods (effective and ineffective) that are being used by the community now.

Which current health programs are utilized and why.

Universal element #3 concerns the primary health care worker. There is no longer any doubt that the primary health care worker, who is not a formally trained doctor or nurse, is one of the keys to success in most health care programs. This person is frequently a villager selected by the community and trained locally for a period as short as 3 to 4 months initially. This could be an unpaid volunteer or a person partially or totally supported by the village with responsibilities for aspects of preventive and curative health.

The primary health care worker has several characteristics and advantages. He or she is: accepted by the people and familiar with their beliefs; able to deal with the problems better than anyone has done before; present when wanted and still there to live with the results of her or his actions; and replaced by the community if her or his work is not satisfactory.

The relationship of the primary health worker to the remainder of health services varies. In some countries the worker is clearly a member of the community as in China. In others, he or she is the peripheral arm of the health service structure. In others, the worker has a dual role - community based and community controlled but also a health service member - and a clear intermediate link between the two. In most cases, the primary health worker is responsible for referrals to more specialized sources of help (hospitals, doctors) and is the recipient of training, support, drugs, equipment and ideas coming to the community.

The primary health worker usually takes care of the preventive, curative and promotional health actions at the primary health care level. The "total health" approach does not mean that all health actions need to be integrated in a single person at the village level. In fact, sex or age may preclude some workers from serving certain functions. For example, in some societies actions concerning family planning, assistance during pregnancy or post-natal care need to be dealt with by women whereas others are best carried out by men. Additionally, many villages are heterogeneous and more than one primary health care worker is needed to play a similar role in different parts of the community.

Universal element #4 concerns community involvement. Any effective health care program must start with the formation, reinforcement or recognition of a local community organization. Community involvement is necessary for success. There are several crucial functions that the community provides.

It sets and authorizes the priorities. It links health actions with wider community goals. It organizes community action for problems that cannot be resolved by individuals alone (e.g. water supply, basic sanitation). It "controls" the primary health care service by selecting, appointing and evaluating the primary health care worker. It establishes the necessary activities for health education and so promotes family hygiene. It assists in financing the services.

Universal element #5 is financing. The financing of primary health care is a complex issue. The nature of the health care program (national change, extension of existing system, local community development) sometimes determines the financing. But, the need for primary health care to be self-sufficient is most frequently expressed. It is argued that there is not enough money in most countries to consider any other solution and that community priorities and cooperation are more likely to be achieved if the people themselves raise and spend the resources required. This argument is only valid if the following circumstances are met.

The rural area must have enough resources. The service costs must be low enough for the community to afford. There must be some source of financing to meet the capital costs.

The self-sufficiency of a community's primary health care program must be considered in the context of a nation's health resources. When only a small portion of a country's health resources are devoted to villages it may seem reasonable for villages to be self-supporting. However this might be considered unfair if a widely based rural primary health care service was largely locally financed, while the government expenditures were all directed to the more privileged or to the urban population.

Primary health care systems can be introduced into a diverse set of communities, but not all communities are viable. An agricultural group that is landless or is made up of peasant farmers whose land has little or no top soil or water will not become self-sufficient even with organization and understanding. These questions of whether a community should be located where it is or if it

is socially viable are national questions to be brought forward in any assessment.

Universal element #6 concerns the utilization/acceptance of health services. Acceptance or use of health programs is a constant factor in assessment and evaluation. Although utilization of a health care service is not synonymous with acceptance, it is an important indicator of effectiveness. Administrators and planners of health programs in developing countries face many obstacles in attempts to assess how and by whom health services are used. There is a tendency to rely on such rules as x beds per 1,000 population. However, it should be remembered that a population does not behave entirely homogeneously. Differential usage of facilities can be expected particularly when folk healing practices persist in the presence of modern Western medicine.

Accurate information regarding utilization of health services is important to assess whether programs are adequate and whether those planned will reach the population at risk. Two kinds of utilization studies are commonly undertaken. In one, the unit of observation is the health care facility. In this kind of study various aspects of the performance of the facility may be examined; the diagnostic pattern, rate of output of services by staff, characteristics of utilizers, etc. Since this type of study observes only those who actually visit the health care facilities, it generally cannot provide a good measure of the rate of utilization by the population.

In the second type of study, the population is the unit of observation. Good estimates of the level of utilization by the population as a whole can be obtained with proper sampling. Often sampling is limited by geographical or sociocultural factors that in turn affect health care utilization. In such cases estimates of utilization are limited to specific sub-groups. Population-based studies, in addition to describing the performance of the health care sector, may also seek to explain the utilization or determinants of differences in utilization rates.

Many variables have been identified as playing a role in the utilization or nonutilization of traditional or modern health systems or both. However, the expectancy of cure is the principal reason. The variety of variables that have been isolated as important in the decision-making process all contribute to this perception of the efficacy of one clinic, facility or program for a particular illness. The variables that have been identified as contributors to the perception of efficacy in various cultures can be classified in three categories: characteristics of the patients, the nature of the disorders, and features of the treatment system.

Characteristics of the patients include individual variables such as age, relative wealth, social status, education, migration status, degree of acculturation, literacy, use of mass media, occupation, pragmatism, and specific expectations regarding the efficacy of one system or another. They also include elements of the culture and society within which the traditional healing system is embedded, i.e., folk concepts of illness and cure, such as dichotomies of "natural" and "supernatural," hot and cold or "material" and "spiritual," which assign certain syndromes to the domain of folk healers, or the social milieu.

Nature of the disorders involved, when help is sought of varying resources, includes chronic non-incapacitating disorders, such as arthritis, malnutrition, parasitosis are more likely to be treated by healers, while acute incapacitating disorders, such as pneumonia, hernia, fevers are likely to be taken to someone with some Western training. Also included are organic disorders vs. psychosocial needs or emotional disorders. The former being more likely to be sent to clinics or primary health workers and the latter to healers.

Features of the treatment systems include those features of the modern Western medical system that impose barriers to utilization. Relative cost, social or geographical inaccessibility, stratification of medical resources, impersonal treatment by the physician, and other value conflicts are described here. The focus of Western medicine on the disease and its removal, rather than the personal, social or ontological crisis of illness, has been noted for limiting acceptance.

Competencies claimed and relative effectiveness with some symptom complexes are to be noted. This set of factors is closely related to the nature of disorders involved and the domains claimed by the folk healer and Western medicine.

Financial constraints include ignorance of costs and services which are too expensive for the poor majority. Geographical obstacles include distance and accessibility of health care services.

This categorization of variables demonstrates the complexity of the factors that determine utilization of a health care program. No simple formulae emist relating degree of modernization or characteristics of a traditional health system to utilization of a Western system of medicine. The variables listed above have been found to be useful predictors in some cases and not in others. Health planners sensitive to the attitudes of the people will identify a variety of these variables as potential determinants within an individual culture.

Experiences with the transfer of medical technology demonstrate three factors that sometimes predispose rural people to greater receptivity and use of health care innovations and primary health workers. These include higher levels of education, contact outside the village, and modernization. Communications, such as listening to radios, reading newspapers or periodicals, seeing at least one movie within the previous year or having a family member who has moved to an urban area still in contact with the family, can all affect receptivity. Modernization includes such items as agricultural expenditures for seed or fertilizer, insecticides or machinery, and the use of electricity.

Even though local disease theories change very slowly, the pragmatic and essentially empirical attitude of most persons enables them to alter or accept other medical practices or behaviors. The impression that has emerged from recent studies of directed culture change is that people are practical to an unexpected degree. If people see results with their own eyes that they recognize as beneficial to them, then regardless of their understanding of the reason and notwithstanding local tradition and belief, they will add to the old by accepting the new. In fact, a good deal of what is taught in indigenous training in South Asia is borrowed from modern medicine.

This finding of acceptance of a treatment procedure without simultaneous acceptance of the basic cause of disease is a frequent consequence of the interaction of modern and traditional health systems. A perceptive demonstration of this thesis was offered by Simmons (1955). In his analysis of popular and modern medicine of Mestizo communities in coastal Peru and Chile, Simmons found that even though the people tended to retain their own ideas as to the basic causes of disease, they quite willingly accepted a number of Western curing techniques. This behavior is a reflection of the traditional approach: the people are more concerned with why they are sick, what they did to destroy harmony, than with how they became ill. Modern medical systems treat the how, while the traditional folk health systems are concerned with why. Western medicine is believed to relieve the symptoms but not the causes of disease, while traditional medicine treats the cause. Acceptance of this difference by Western and traditional healers working together has led to very successful primary health care programs.

CHAPTER FIVE

METHODS OF COLLECTING SOCIOCULTURAL, PSYCHOLOGICAL AND BEHAVIORAL INFORMATION

It is important that any technician, who is developing a program within a community or doing an assessment, has access to sociocultural and psychological information about the people to whom the program provides health benefits. Most of these agents of change cannot be expected to carry out a complete study of the society in which they are working. Others may be charged with collecting numerous sociocultural data for the purposes of evaluating an existing system or planning for a new program.

Some methodology books on social research methods which might be useful for more detailed inquiries are: Anthropological Research: The Structure of Inquiry by G. Pelto and P. J. Pelto, Research Methods in Social Relations by Claire Selltiz, et. al.[2] and Community Culture and Care: A Cross Culture Guide for Health Workers by Ann Templeton Brownlee[3].

The investigator in charge of an assessment should be involved with each stage of the research. Any information gained is more valuable, and insight is more frequent, if one is personally involved in some of the data collection activities. However, one does not want to become so involved that he or she has no time to examine objectively what is being done.

The advantages and disadvantages of using an outside research group to conduct research were discussed in the chapter on stages of an assessment. Even if one uses outside assistance, it is useful to use native members of the culture or community being studied. Their knowledge of the area, the culture and the language can be a strong asset in gaining useful and valid information. However, one must be cautious and observe carefully at least the initial work done by a team like this. Local people can also be unreliable because they are so familiar with the culture that they predigest the information. All data goes through their interpretation and evaluation first. As such, it can represent a distorted view, preconceptions and foregone conclusions. Distorted answers to the research questions have no place in the research, so sensitive discussions about research objectives and methods are necessary before any team begins a research project. Even if these people are not used as part of the actual research team, community people should be involved whenever possible. Some ways to involve community people will be discussed below.

Before starting the research, look and listen. This advice applies to the initial meetings with ministry and embassy officials as well as to the specific cultural studies one might conduct while doing an assessment.

Some communities may feel that they have been overstudied. As a result, they offer the wrong information or joke with those who come to study them again. The people's anger and weariness with research could come from being asked the same questions repeatedly or from finding that those who study them offer nothing in return. There are several ways to limit these problems.

Always collect all available data, but determine if a question has already been studied before it is incorporated into the research. Involve the community

being studied in the process of research and problem solving. Meet with several groups of members of the community (women, other men, younger people, healers, etc.) to find out what they think are the problems, questions or answers to be studied and to discuss what you intend to do.

Always give something in return for the information you take from a community. The community should always be offered a copy of the finished report of your conclusions. When possible contribute in other ways by answering questions or donating services.

Determine the rules of protocol. The assessment effort and any individual research activities are likely to encroach on the territory of others or to pass into areas where there are unwritten rules and procedures. Before beginning an investigation, explore whether you need to ask for special permission.

Permission or the company of a community person may be needed before certain celebrations, ceremonies or practices are observed or studied. Similarly, certain community leaders or supervisors may have to be contacted before community members or employees are questioned.

Some members of the embassy or ministry staff may insist on some involvement in or reporting of certain specific research activities. The "proper authority" may need to be consulted before cooperation can be gained for questioning in a sensitive area. Some social groups which offer the most useful opportunities to gain information may have informal meetings the investigator could attend (e.g. women's social gatherings, men's clubs or meeting places.).

A close friend or informant who can serve as a bridge between cultures is an important key in learning to know a people. The informant, familiar with the government structure, can be useful in reading between the lines of policy and data offered. Informants who are familiar with the people can be most useful in advising one of how to go about determining the needs of the people or assessing existing programs. One must be cautious in choosing confidants. They may have certain motives for the friendship. More commonly, they may not be in touch with their own culture. Often local persons who are attracted to an outsider or foreigner are marginal within their own culture. They may be persons who have become different from their own people, possibly because of their experiences outside of the culture, and they are no longer fully accepted within their community.

The Steps of a Research Project

Research methods can be used simply to gain information in order to become familiar with a culture or to assess and evaluate the effectiveness of intervention programs within communities. The approaches discussed here are more relevant to microstudy at the community or regional level. This research design offers the fundamental steps one goes through in carrying out any study.

Identify the purposes of the research. Define and describe the problem or intervention program under study. This should include all existing ideas or hypotheses about the causes of particular problems or the ideal and real consequences of a program. In order to complete this step, sampling of a variety of situations (villages, existing programs, patients, nonpatients) should occur. This can be accomplished informally from visits and discussions with local leaders, community members, and government or agency personnel. In this way, several things can be determined: what community patterns, behavior, and groups are most common and extrasectoral impacts on the community or the intervention program (e.g. political, economic, educationsl system, leadership patterns, belief systems, etc.).

Define several specific objectives of the research or hypotheses to be tested. In identifying the nature of the culture for the ultimate purpose of design of appropriate technological or educational programs, the objectives would include assessing barriers to intervention as well as points and means of intervention. An evaluating study designed to assess the effectiveness of an existent program would include hypotheses about people for whom the program is effective, and the ineffectiveness of the program. Most research takes place over a certain time frame. This should also be defined. In measuring the effectiveness of a program, the preintervention assessment period, and post intervention assessment time period should be equal.

Identify the sample and site characteristics needed. Based upon the purpose of the research and the hypotheses/objectives, the necessary characteristics of those to be studied can be determined. Those selected for study should reflect, as much as possible, the existing range or variation in each critical characteristic (e.g. different income groups, a span of age groups, a variety of educational and status backgrounds, a range of geophysical environments, the range of acculturation possible, etc.). In this way, differences between people that may be causes of certain problems or ineffectiveness will more clearly appear.

Areas to be studied, locations to be visited, and groups to be included should also be identified by political association. This will be useful for the purposes of generalizing to other areas, for follow-up, implementation, and for understanding the causal or maintenance factors. Certain characteristics may correlate with living in or using a particular site. Then, those selected for study at the site should have the same distribution of individual characteristics (e.g. medical needs) that are found across the entire sample.

In most research one desires to have a measuring device against which one can assess change or differences. For these purposes one can use a comparison group, which is another group of people living in a different area and being affected differently on the important dimension under study.

Baselines are rates of behavior found before an intervention takes place or among a highly similar people who do not have access to the intervention. Whether a group is studied prior to an intervention or another similar group is studied, the environmental-seasonal conditions of the groups should be carefully watched. Sometimes the effects of those factors can be mistaken for consequences of an intervention. For example, a rate of births given at home versus at a community health center, or a disease incidence among school children. Similar to this are normative data. Those standards are derived from large population statistics or someone's expectation.

A control group is another group of people who are similar to the study group in every way. However, the study group is offered or given some special treatment (an educational program, opportunity for training, a mobile clinic, or a new type of health worker). The differences in behavior or health and illness of the two groups is then compared after the passage of time. Differences between the two groups will identify the impact of the special treatment.

These methods of deriving a standard or basis for comparison are not always feasible. Attempts should be made to collect some records for comparison even if this means careful notes and personally accumulated statistics.

A variety of research methods or data collection techniques are described in the next section. Each of these requires careful sampling or testing among the people selected. In general, it is better to allow some time to develop rapport with a community before one samples within it. It is also useful to

talk with village leaders about what one intends to do in the community and why one is there. In all cases, it is useful to "test out" one's method with a few local people asking them to react, criticize, and modify the research tool. This will be done to see if there is comprehension of the meaning of the questions asked and to ensure that the questions are not at all offensive or inappropriate.

When collecting data with any research tool, rapport should be created with each person being sampled or asked for information. To foster rapport means responding to each person's cues, learning the values and customs of the culture. Arensberg and Niehoff (1971) offer these suggestions for an honesty of approach:

"Explain truthfully but as simply as possible the purpose in asking for and accumulating knowledge about the local culture. Inquiries may be suspect at first, but people are flattered by genuine queries from respected strangers. If nothing happens that suggests hidden intentions, their suspicions will fall away and they will accept the fact that none are present. A lie or false pose will almost always become apparent fairly quickly and will damage the investigator's reputation as well as that of others who might follow.

"Begin with subjects which have the least potential threat, and proceed to new ones only with the consent of local people. Also, enter new places for observation only with local consent or preferably by invitation. Secret observation or interrogation with disguised intentions too closely resembles spying. The change agent interested in a local culture has neither the rights nor duties of a detective or lawyer. Anything sacred or dangerous in their beliefs is best discussed openly and at their initiative. In general, it is not necessary to attempt secret techniques if one can eliminate the fear of repercussion. This seems to be the only consistent block to release of information.

"Respect local values, conventions, taboos, and prejudices even when it is not possible to go along with all of them. Ignorance of local customs will usually be forgiven, but contempt will not. By asking for guidance, one not only learns local customs but shows his good faith to his hosts.

"Maintain confidences. Information given privately, especially if it can be harmful for the informant if disclosed, must not be disclosed to others. Social scientists have often followed through with this policy by trying to keep their informants and the places they have studied anonymous.

"Refrain from making moral, esthetic, or other judgments about the culture or persons from whom the information is coming. This is not easy; but if learning is the prime consideration, it is essential. Any condemnation or even high praise of information or its source is not only irrelevant in a learning situation but is likely to estrange the informant or bias the responses. Some reactions of surprise, incredulity, or disdain are involuntary and almost unavoidable in cross-cultural contacts. But training and concentration can compensate for many such automatic responses. The good investigator of another way of life is like a good diplomat in this respect. He keeps a poker face and finds a way to indicate his interest and friendly intentions without committing himself by overt praise or criticism. A continual display of one's immediate reactions is not only naive; it is a sure way to close off further contact or to bias the responses of persons from another culture.

"Avoid expressing nostalgia, vainglory, or invidious comparisons between one's own culture and the local one. Field research is not a debate. If the purpose is to build rapport and obtain information, it does nothing but harm to prove the inferiority of the local cultural ways. If informants want factual information about the researcher's way of life (and many will), it should be

given to them honestly, in relatively simple terms. There is much curiosity about Western and American life.

"Come acceptabl prepared for and try to stay clear of too close an identification with any ocial level or faction. It has been a common experience in social science that the best results are obtained if the field worker follows the lines of personal relationship, descends a hierarchy gradually, and when working with a low-ranking person, to have at least seen those of higher authority or prestige. To work through the heirarchy is to pay deference to the scale of values held by the community. There are lines of relationship that unite all levels and factions of a culture. The efficient field worker will find and follow them without identifying closely with any."

Once the data collection is complete, it should be brought together for examination and analysis by a small group of people. Sociocultural data usually involves certain personal information, consequently serious attempts should be made to control dissemination of any information. All data should be considered confidential. The importance of this confidentiality should be discussed with all those people who have been involved in the data collection process.

Data analysis involves tabulating, compiling, and comparing the data. In addition to looking for expected differences and findings derived from the hypothesis or objectives, the data should be carefully scrutinized for other meaning. These stages of analysis include determining the relevance of the data and making interpretations.

The hypotheses, methods, results, interpretations, and conclusions of a study should be included in any report. Although a study might be informal, interrupted, or apparently noninformative, a record of each of these stages and the conclusions should always be made. It is surprising how much data can take on new meaning or utility in different contexts or at different times.

Methods of Research

Content analysis or secondary research is most useful to provide the background and familiarity needed to do direct research. It involves reading newspapers, books, journals, novels, case studies, and reports about a people, an area, or a problem. Another technique which might fall in this category is to make the acquaintance of any anthropologist working in the area or with the culture.

Surveys are used to ask large numbers of persons a set of impersonal, short answer questions. A simple survey of all or a randomly selected portion of a particular group or community can offer a lot of information. This technique is especially useful when you want to get a general idea of what the group or community feels on certain topics, and when formal questioning of this type will not be harmful to future relationships with the people being surveyed. For example, the random survey is useful as a "baseline study" of a community's attitudes toward health, illness, and existing services, especially if these results are to be compared with those of a later survey taking place after a program has been in effect. The survey is also useful to learn basic sociocultural and demographic characteristics of a population, statistics on birth and death rates, and family hygiene practices.

The survey may be too brief and impersonal to address ome topics. In those cases, in-depth interviews and observation may be more useful. Those two techniques are also useful as preliminary strategies in making up a survey. Some interviews and observations will offer guidance in the types and wording of questions to be included.

Interviews are usually based on structured or semi-structured questionnaires developed to gain detailed information about one subject. Often these include open-ended questions and probes that allow for long and free responses. In-depth interviews require more time and more cooperation on the part of subjects. The recommendations of Arensberg and Niehoff are important to follow in conducting this type of data collection. One is able to ask subjects more personal questions with this method. Additionally, honest attitudes, criticism, and the implicit behavior patterns or feelings behind the explicit patterns of culture are more easily obtained with this method than the next.

Although direct questioning can produce a certain amount of information, anthropologists recommend that much of this information is incomplete or inaccurate. The major reason is that people do not always do what they say do and there are demand characteristics in these situations which suggest to the people sampled the "right" things to say. When questioned, people often answer the question the way they would like things to be, or the ideal rather than the real. Another disadvantage of direct questioning is that the questioner doesn't obtain all the information because he or she doesn't know the right questions to ask. Participant observation is an alternative that provides intimate knowledge of a culture.

Participation in a local culture has another strong advantage. Probably the best way of convincing local people that one is interested in their way of life is to seek their help in learning some of the ceremonial and social customs. Being sincerely willing to openly participate in weddings, religious ceremonies, and other communal activities is a powerful way of demonstrating respect for another culture. Genuine interest includes participating whenever possible. This will please the local people, but the technician may find himself or herself without any time alone or enough time alone or enough time to make notes on the participant observation.

Informal discussion is a modified form of participant observation. Once one establishes rapport with local people it is important to pay careful attention to the information offered in informal chats. This includes talking with the ordinary workers, housewives, and community people as well as the local leaders and wise elders of the community. Talking with critics of an intervention is also important. This should include seeking out traditional or folk healers who may or may not have a current clientele.

In doing regional assessments of health needs and differences that affect health, there are many people that should be included in any data gathering. Once one has received the official explanations or data, informal conversations and, in some cases, in-depth interviews should be conducted.

Get to know local leaders and widely respected residents. They may legitimize any research activities and facilitate cooperation within the community. Talk with those who are considered wise. In some places these are older people. In others they are priests or healers. They may offer insight into the problems and possible solutions for their communities. They offer a unique view of the history of their community and their reactions to change.

Spend informal, conversational time with the ordinary community people. This engenders trust and a sense of intimacy that often leads to greater understanding on both sides. Talk with the recipients of care— upon completion of a visit to a clinic or a primary health worker, people will be able to offer honest appraisals of the service. Getting to know the clients of a health program and their outlook can enhance the depth of an assessment and bridge the gap between use and acceptance of a program.

Talk with critics of the existing system or programs. They may be able to identify areas where the investigation should focus or changes should be considered. Their opinions and advice should be carefully weighed. Talk with critics of the research. They represent a formidable force that could invalidate the research effort. Their criticisms should be considered in modifying the research strategy. But, leaders or respected members in the community may be able to aid in evaluating the validity of the criticism and in quieting those who criticize.

A first step in studying any aspect of another culture must be to determine what types of questions to ask and what ones not to ask. Within every culture certain questions will seem too personal and others may probe areas that are taboo for a variety of reasons. Mistakes will be made, but the chances will be fewer if questions are checked with local people before they are used in the field. A corollary of this is to learn when to ask questions and when not to ask them. There are certain situations in every culture which are inappropriate for asking questions. There are even times of the day (in some places evening hours) when people are more willing to spend time being questioned.

Learning how to ask questions appropriately is another simple but crucial matter. In some culture, an interviewer may be expected to come straight to the point. But in others, an interviewer is expected to engage in a certain amount of small talk before any questioning occurs. The modes of communication used in different cultures should also influence interviewing style. In some cultures eye contact may inhibit comfortable and accurate interviewing, while in others it may be a sign of sincere interest and expedite the interview. These differences in communication should also be attended to in evaluating the answers to questions. Body movements, posture, eye movements, and facial gestures are all important indications of attitudes and feelings.

Explore people's attitudes toward questioning so that your methods do not offend people. Direct questioning may be discomforting to some people and indirect methods of questioning or observation may be required. Adapting questions to the culture is a necessary part of conducting effective research. Traditional ways of phrasing a question or asking about certain feelings in one culture may be entirely inappropriate in another.

Pre-test your questions and your interviewing approach with local staff and possibly a few community members. Ask them if the questions would be appropriate and understandable. Also, ask what the question means to them to see if the question obtains the answers you expect and if there are other questions that might yield a more accurate response. Try asking yourself the same questions about your own culture. You may be asking questions for which people do not have an answer.

Role-play the interview session with some of the local staff or community members. Have an interviewer use the questionnaire (survey or in-depth interview) to interview another member of the staff. Have a third member stand by and act as the alter-ego of the person being interviewed. In this way he or she can give candid reactions to the questions and the answers offered. Discussing the exercise afterwards usually results in useful modifications of the interview format and contents.

Typical Problems in Gaining Accurate Information

The development of trust is important for honest exchange of information. It is difficult to establish, although sincerity, honesty, and forthrightness are certainly important in fostering trust. Possible reasons for distrust can be many. Brownlee (1978) and others have noted these.

Mistrust or reserve may be the typical response to a questioner who is still seen as a "stranger." Mistrust may be prevailing because the questioner has not proven him or herself as trustworthy. What it takes to create that trust may vary from situation to situation. Mistrust may persist because of poor past experiences with others of your same culture.

Respondents may want to tell you what they think you wish to hear. The value placed on pleasing the questioner varies in each culture. This should be watched for because it can interfere with obtaining a full understanding, as is illustrated in this incident reported by Brownlee (1978): " . . . a lot of times people will give you the white person's answer because they think that's what you want. They'll say the baby died of some sort of disease or something like that when that's not their real explanation. For example, they'll say, 'Oh yeah, the child had a fever and that killed him' when the fetisher is saying, 'This is a child that keeps coming back to his mother and keeps dying.' In this case this woman had several of her children die all at about the same age of 2 or 3 and the fetisher said that it was the same child that kept coming back just to cause grief to his mother. 'He was always a child who was never there to stay.' She knows that and that's what she believes, but she thinks the answer she has to give me is the white person's answer. 'That she had a baby die because he had a fever and they didn't have any medicine to treat it.'"

Another facet of this is the inclination to never say "no." In order to please the investigator, the respondent will answer "yes" because it is impolite to say "no," but the person has no intention of participating or following through on the "yes."

Accurate and truthful information cannot be obtained if one is asking the wrong sources. An awareness of local prejudices and rivalries is necessary to know who can accurately report on a community or culture. Questions may also be asked in the wrong way or in the wrong place or time. Cultural practices, daily habits, and traditions in communication must be considered in developing the questions.

People may not be able to reflect on what is second nature to them. Some of the practices and beliefs which might be investigated are so familiar that people may have trouble understanding questions about them and even formulating answers.

A respondent's replies may be altered during translation. The meaning of a response may be lost in translation for various reasons (poor command of the language, non-shared concepts in the languages, conscious or unconscious screening of the answers, etc.). More accurate information may be gained if the health worker is able to master the local language. If that isn't possible, an understanding of some potential problems in translation may be useful.

Respondents may report the ideal instead of the real. In every culture there is a difference between what people believe should and does happen and what actually occurs. Watch carefully for corroboration of what is offered as reality and press for actual examples or situations as answers to questions (e.g., how a treatment takes place or the sanitation practices involved in preparing a meal).

People respond to the interviewer. The interviewer's sex, ethnicity, age, educational level, social class, and other personal characteristics all influence the respondent's responses. Exploring the nature of reactions to the interviewers among the staff may help in understanding the limitations of the answers. This may also suggest the use of other interviewers.

CHAPTER SIX

OBSTACLES TO THE TRANSFER OF MEDICAL TECHNOLOGY

AND METHODS OF OVERCOMING THEM

Programs that seek to alter health practices and beliefs constitute, to varying degrees, efforts to change customs and traditional patterns of behavior. When this occurs the traditional culture must be treated as something which exists and that needs to be taken seriously for pragmatic reasons if for no others. To make an effective program, community involvement and observation is needed throughout the development, planning, implementation, and evaluation of a project to monitor the acceptance of it.

The processes of selective acceptance and modification are not random, but depend on how the new idea/practice is perceived by potential recipients and how the ideas and practices accord with the values and beliefs the people live by. Whether the practice is introduced in a pattern consistent with the existing system of social relations is important. So is the innovator or agent of change and the status and qualities of the innovation, practice, program, or technology.

To investigate each of these five variables there are social, cultural, psychological, and practical factors operating in the community and in those in charge of the program that should be examined. The discussion will cover common expressions of these factors found in traditional and non-Western cultures as well as methods of assessing and overcoming them. This information is presented to sensitize the reader to possible obstacles and difficulties in the transfer of medical technology. Additionally, the material offered demonstrates the principles of behavior and psychology discussed in the previous chapter and how they can be used as a tool for assessing needs and planning programs. General means of evaluating and coping with these factors are also discussed at the end of this chapter.

How the New Idea/Practice is Perceived by Potential Recipients

New information presented to a people that is contradictory to customary behavior and beliefs may not even be perceived. As was mentioned earlier, a culture shapes the perceptual processes of its members; information that is very discrepant may not be communicated. When such individuals are forced to recognize it, the information may be rationalized away or immediately forgotten. When the advantages of modern medicine are not convincingly or immediately apparent, traditional medical beliefs provide a ready system that can explain any occurrences. By this way of thinking: if magic is necessary to remove all of the causes of an illness and the illness is apparently removed, then magic must have been used. Be aware of the fact that people may not acknowledge or accept a program in the way you expect them to, and yet they may be using it.

New information will be assimilated in such a way as to produce the smallest effect in the whole meaningful interrelated structure of an individual's organized

experience. This tendency is important for humans to perceive constancy in their daily experiences (e.g., people, animals, vegetation, when seen from different angles or in different lights are perceived as the same objects). This also makes possible the assimilation of facts in a way that lessens their impact, so there is no major reorganizing of the system of thought. Logan (1973) has used this principle to introduce modern medicines in parts of Guatemala. By understanding the people's cognitive/perceptual system for identifying hot and cold properties, he has introduced modern medicines and treatments that are used by the people because they are believed to have the right temperature proportion. The key is to present novel information in a form or way that fits very well into the existing set of knowledge and experience of a people. Obviously, this requires a very complete understanding of the existing set of beliefs.

A change in behavior or belief will be perceived as a smaller change if it can be incorporated into an unchanged larger pattern of thought or behavior. Exposure to new information that is harsh or contradicting a strong set of behaviors can cause people to withdraw themselves from it. If the individual's beliefs and behaviors are shared among a group, it may be necessary to change a goal of the whole group before individuals will be willing to adopt new information. Powerful members of the community (usually leaders and older people) in some cases can more easily adopt a new practice or information and thus change the direction of the group.

Misperceptions of reality can take place because of differences in fundamental thinking about the world. Measures that a physician may take to diagnose an illness are often thought to be the treatment. For example, the patient believes he or she should see results after a blood sample has been taken and consequently never returns to the physician. For people in many traditional cultures, the connection between an action and its beneficial effects is difficult to perceive unless it occurs immediately. When the time gap is large, other positive consequences (praise, status, etc.) may be needed to get an individual to appreciate a new practice or behavior.

Problems of perceptual misinterpretation are also common. A humorous example is the case of a U. S. Navy health officer during World War II who hoped to eliminate fly-borne disease on the island on which he was stationed. He had the chief assemble his people, to whom he gave a health lecture illustrating the horrors of fly-borne diseases with a foot-long model of the common housefly. He thought he had made his point until the chief told him, "I can well understand your preoccupation with flies in America. We have flies here too, but fortunately they are very small." He gestures to show their size and by implication their lack of menace to health.

Institutions like clinics or hospitals can be misperceived because of reputations or misinformation. For example, hospitals are often perceived as places where people go to die, not to get well; consequently, there is much resistance to hospitalization because the patient perceives it as meaning his family has lost all hope for him. This aversion is expressed in a famous saying about the Kasr El Eini Hospital, the largest in Egypt: "He who enters it will be lost (dead) and he who comes out of it is born (as a new man)" (communicated by Dr. Fawzy Gadalla in Foster, 1973). In Mexico, too, hospitals are still perceived by many as places one goes when all hope has been lost. Recognizing the psychological block caused by the word "hospital," many private institutions there are now called by the term sanatorio, which comes from sanar (to get well), thus emphasizing an expectation of recovery. Recently the Ministry of Health has recognized the psychological implications of the word "hospital," and it now calls its small rural clinics sanatorios

rurales, while larger establishments are "Health Centers, with Sanatorium." Unfortunately this strategy cannot be prescribed indiscriminately in Latin America. In Costa Rica the first use of the word sanatorio was for a tuberculosis sanitarium, which conveys an even more unpleasant idea than a mere hospital. Similarly, in Honduras the word was first used for a mental hospital, so there, too, the word's utility has been lost to other contexts. Careful listening and observation is required to use this approach to the problem of misperception.

The importance of understanding how a people perceive the relative consequences of illness is illustrated by the Navaho Indians of North America. Among the Navaho Indians there is a high incidence of congenital hip dislocation— 1,090 per 100,000. The condition can be treated successfully by nonsurgical means during the first couple of years of life, and surgically during the next several years. But at later ages "freezing" the hip, which eliminates motion, is the only way to prevent probable painful arthritis beginning at the age of 40 or 45. This is the accepted treatment in American culture, and when medical workers discovered the high Navaho incidence, they assumed it was the answer to the problem among the Indians. However, among the Navaho the condition was not considered to be really serious. It was actually considered a blessing, since fate, having dealt this minor deformity, was thought less likely to strike a family with greater ill fortune. The congenital hip is not a barrier to marrying and having children. But, for a Navaho, a frozen hip is a serious problem: He cannot sit comfortably on the ground or on a sheepskin to eat with his family, and he cannot ride horseback. These handicaps more than offset the thought of disability 20 or 30 years in the future, disabilities that may not come anyway. "From the viewpoint of the Navaho . . . the sole contribution of modern medicine to the question of congenital hip disease was to transform something that was no real handicap and was almost a blessing, into something that represented a very serious handicap indeed." (McDermott et al. 1960, 281).

The perception of gifts and costs for services is important to understand in fieldwork with medical programs. In many technical aid programs, it has been thought that it would be fair to offer commodities and services without cost. But, acceptance under these conditions has usually been low. This is because, in many situations people interpret a gift as something without value, and they reason that: if something had value, why would anyone be so foolish as to give it away? Hence, the act of giving something for nothing is interpreted as meaning the offering is not worth the trouble to collect or use it. It has been frequently found that if a token price is placed on service, people will accept what they otherwise reject.

Foster (1973) provides this example: "When powdered milk was first distributed in Chilean health centers, it was given gratis because of the poverty of mothers who attended maternal and child health clinics. But few mothers would use the milk; they suspected it was of poor quality or downright harmful. A free gift, in their experience, was suspect. Subsequently a token charge was made for milk; the mothers then perceived that in the eyes of clinic personnel the milk had value, and shortly the supply could not keep up with the demand. (communicated by Dr. Victoria Garcia). (p. 137)

"A similar problem arose in the Rockefeller antihookworm program in Ceylon. The very fact that the treatment was free was suspicious. A Moorish physician attached to the program countered this suspicion among his coreligionists by telling them that John D. Rockefeller had been very ill with hookworm and had been cured; out of gratitude to Allah he had given all his money to cure everyone

else who had the disease. The account concludes, "May Allah and Mr. Rockefeller forgive this deliberate falsehood, if it should come to their attention." (Phillips 1955, p. 291). This story illustrates, in addition to the perception of free goods, that the Moslem physician, familiar with the religious beliefs of his patients, was able to answer their doubts and cast his program in terms that fitted the culturally determined expectations of the people as to why a man would want to give something for nothing."

How the Ideas and Practices Accord with the Values and Beliefs the People Live By

The values of a culture are visible to an observer in the behaviors for which people in a community receive general social approval and in those innovations that receive almost immediate approval. For example, Benjamin Paul (1963) noted in reviewing his experience with traditional cultures that preventive health care has little value in most cultures. This perception was based on years of attempts to introduce programs that required from local communities time, energy, and resources. But, as Messing (1973) has pointed out, a more accurate description of this might be "discounting health:" a people whose major concern is bare subsistence must expend their energy for that purpose alone and they discount all other activities. In fact, in most cultures, minimal efforts to prevent illness with the use of amulets, rituals, or prayers are common. The notion of preventing illness is not alien, it is only that the people must use most of their energies to provide for the basic essentials of life. Practices of preventive medicine along Western lines have to be integrated into these life situations.

Some cultures highly value novelty and change. This is most common in industrialized contries and has been associated with a productive economy. But, in traditional and rural cultures, old ways are usually revered. Traditional wisdom supports its own authority as in the case of Algerian peasant beliefs by Bordieu (1963):

"The future is not robbed of its menace unless it can be attached and reduced to the past, until it can be lived as a simple continuation and accurate copy of the past. 'Follow the road of your father and your grandfather;' 'If you resemble your father you cannot be accused of fault.' Such are the teachings of wisdom." (p. 70)

An attitude of fatalism often accompanies this type of faith in tradition. This predisposition was discussed earlier. Minimal control over the environment and social conditions as well as reverence for the ways of the past can create a strong sense of fatalism that constitutes a considerable barrier to change. But increments of change, each resulting in prompt positive consequence for a people, can surmount these attitudes.

Anthropologists have noted the importance of modesty in all cultures. Although standards vary between communities, no culture is without the concept. People returning from the Amazon Basin tell of Indian women observed nude at a close range who were embarrassed until they put on a string of beads or some other ornament. In Mexican villages, older men are uncomfortable if seen without a hat and housewives are embarrassed to be seen in the home without an apron over their skirts. Customs related to female modesty and the proper relations of a physician to a pregnant woman have handicapped public health programs. The impersonality of modern medicine has often ignored this important value. If it does, then it has no part in most traditional cultures. Sensitivity is required to detect the importance and impact of this value.

Specialists working on technical and medical aid programs tend to assume that people with whom they are working share their system of thinking and logic. If there are difficulties in putting the program across, it is then assumed

that either the people are stupid and cannot see the advantages to change or that the technicians' mode of presentation was not skillful. However, as has been pointed out, the premise of this argument is wrong. Most people from non-Western cultures do not share the system of thinking or logic of Western or Western-trained specialists. In fact, people often understand the presentation of a program clearly, but they have weighed the rewards to be gained by the alternate forms of behavior and decided against the new program. The specialist who only sees this as irrational is making a mistake. Careful examination through talking with the people will uncover the rewards and positive consequences they will not give up for the new program.

An example of assuming like values and rewards is presented here. In this case, economic gain and high nutritional value were assumed to be of highest importance: "The agricultural extension agent, struggling to solve problems of food shortage, often wonders why people are reluctant to grow more nutritious and higher yielding strains. One of the most striking examples of this situation has been summarized by Apodaca. In a community of Spanish-American farmers in the Rio Grande Valley of New Mexico, a Department of Agriculture county extention agent succeeded in 1946 in introducing hybrid corn that produced three times the yield of the traditional seed. After participating in initial test demonstrations, a majority of the growers adopted the innovation. Yet forty years later nearly all farmers had reverted to the old corn. Investigation revealed that the farmers' wives had complained about the texture of the dough used to make tortillas, about the color of the finished product, and about the taste. In this community, corn quality turned out to be more important than corn quantity; people were willing to sacrifice economic gain for something they esteemed, in this case traditional food characteristics." (Apodaca, 1952)

Whether the Practice is Introduced in a Pattern Consistent with the Existing System of Social Relations

A technical change will be perceived by the affected individuals as a smaller change if it can be incorporated into a larger pattern that remains unchanged: a ritual, an existing community group, or family framework. Communities are marked by social networks and structure. The norms of authority, traditional patterns of communication and interpersonal relations in a community should be respected. Time has sanctioned and validated these ways. Innovation that too strongly threatens the customary ties, lines of authority, and social roles of individuals or that impose new or undesired social or contractual relationships are often viewed with suspicion and can arouse strong resistance.

In studying traditional and rural communities, the strength of propriety in norms regarding appropriate behavior is remarkable. There is a strong sense of mutual obligation, a general preference for small group identification and a willingness to criticize those who deviate from these norms. A common foundation for these behaviors is a pattern of reciprocal behavior. Obligations for reciprocity are most effective in producing harmony when all people have the same access to resources and their economic well-being is at a similar level. An emphasis on individualization, competition, and economic growth that often accompanies development, aid or technology disrupts this pattern. Those who gain find that their relationships are no longer in harmony; often more is expected of them than they will receive. In such cases people are placed in a cruel dilemma expressed by Foster (1973) as follows: "If they are to enjoy the fruits of their greater initiative and efforts, they must be prepared to

disregard many of the obligations that their societies expect of them or they must expect to support an ever-increasing number of idle relatives and friends, with little or no profit to themselves." (p. 108)

Often people solve this dilemma by continuing to accept the status quo. Macgregor (1946) writes of the Sioux Indians: "The Indian who amasses a large herd of cattle, builds a good home, and receives an income of a thousand dollars or more but does not distribute his wealth on ceremonial occasions, such as a wedding or funeral in his family, becomes the subject of severe criticism and ostracism by his relatives and friends. This is just what happened to many mixed-bloods who followed the white pattern of accumulating property and thus lost favor and status with the majority of the people in their communities . . . To receive and feed all visitors, especially relatives, is still an obligation. It is this custom which undermines economic development of individual families and keeps them poor. When there were greater food resources to be obtained by the skill of the hunter and everyone was close to the same level of wealth, hospitality did not tax the individual family too heavily . . . This is not now the case . . . hospitality has become a burden to the few and a strong deterrent to accumulating material wealth . . . The man with a regular salary today becomes a target for his poorer and ne'er-do-well relatives. 'He has enough. Why should he not feed us? He is my relative,' is the prevailing attitude." (pp. 113-114)

Anthropologists have noted the emotional elements that support social systems: a strong dignity in personal bearing and a pride in one's way of life. These are universal among people yet many technically well-designed programs have been unsuccessful because culturally defined norms or practices of pride and face have not been recognized. In Chile where public health centers, modeled after United States patterns, were introduced beginning in the 1940's, the prenatal mothers' "class" taught by a public health nurse was a part of the introduced pattern. But the new program was only partially successful; expectant mothers balked at being taught in classes like children. Consequently, it was decided to represent the classes as short-lived "clubs," which met for the prescribed number of weeks, usually in the homes of the mothers. The health center provided tea and cakes, and the meeting thereby became a social affair, in which the discussion of prenatal care was only an incidental event. Since club life is associated with the upper and middle classes, the women from low-income brackets who were health center patients were delighted to be asked to participate in such activities, and the program, as a health measure, has been highly successful.

The importance of working through local leaders has been emphasized by experienced technical change agents. In fact, some suggest that the leadership pattern is the most significant element of any local culture to work through in presenting new ideas. Leaders influence opinion and they have vested interests in their positions. It is common that when powerful influences come into communities without the sanction of the leaders, their position is threatened. An outside change agent does not really have the option of ignoring a local leader, because if ignored, the leader has the choice of either accepting a position of powerlessness or opposing the outsider. Since few leaders are willing to relinquish power, the usual reaction in such circumstances is to oppose the outsider.

In the initial stages of project development, the outside change usually works through official government workers. Such officials can be expected to have more or less accepted the person even before they begin working together, or at least to have a common interest to bring about change. Nevertheless, no matter how amicable the relations are between the two, the change agent will still need to face his chief hurdle: to take his message to the population,

the peasant villager or the urban poor, where there will be other government officials but also other significant leaders. The chief responsibility at this stage will be to identify the persons who actually influence local opinion, and to get them committed to the project goals.

Arensberg and Niehoff (1971) have identified two kinds of administrative leaders: traditional headmen and appointed bureaucrats. This distinction reflects the continuance of an old system while a new one is forming. In that analysis, the ex-colonial governments of the world are constantly trying to increase their authority, and one of the principal methods is to assign administrative officials ever more widely. These appointed officials have positions which depend either on modern education or a relationship with the political group in power. They are also allocated the power distributed by the central authorities, the most important of which is the police force. However, in many of these villages there are also traditional leaders, who are inheritors of the kind of authority that existed before the modern civil service system was begun. These traditional headmen or leaders frequently have much credibility with the villagers but relatively little power from the government. Consequently, both types are important for change. The degree of their importance will depend on local circumstances.

A lack of cooperation from leaders can be as harmful to a project's success as their open opposition. Lack of cooperation usually comes from the leaders not visualizing any advantage for themselves. They will then simply go through the formalities with the change agents but do little or nothing to sway their followers. This reaction probably most often occurs with bureaucratic or political leaders.

The local educator, teacher or headmaster, may be another very significant person for implementing new ideas. This is because he or she is educated and usually interested in modernization; not opposed to change, at least as long as it does not challenge his or her position; and he or she works and frequently lives, in the world of the rural villager or the urban poor, thus having advantages over the county, district, or city official who remains a distant, outside figure. Frequently it is the local educator who is most capable of closing the gap between the higher officials and the poor to whom they hope to introduce change. The teacher usually has a relatively good image among the poor because he or she brings a highly desired commodity— education. And furthermore, the educator is in a very favorable position to put information into the informal communication network of a community. For this reason, teachers were brought into the early stages of a public health program in Guam, to give students special assignments in sanitation and to lecture them. The children in turn influenced their parents to adopt some new health practices, and a significant reduction in intestinal diseases occurred.

One difficulty with teachers as promoters of change is that they can accept outside ideas too freely, and frequently without having the necessary technical background to fulfill the demonstration requirements. The effort of a well-meaning teacher in Costa Rica is an example: he attempted to act as the technician without the requisite background. Trying to get local farmers to cultivate vegetables, he planted a demonstration garden which failed to prove the value of the new varieties because the soil was not proper. The village cultivators' opinion was confirmed that the teacher was not an agricultural 'expert' and they did not adopt the new practice (Arensberg and Niehoff, 1971).

The religious leaders and their organization remain as powerful forces in most of the world. This is particularly true of the established world religions — Buddhism, Hinduism, Christianity, and Islam. The leaders of these groups possess several attributes which make them important. First, they are members

of large organizations which cover not only whole nations but also whole world areas, which gives them the potentiality of being communication centers. Second, they are well accepted in most of Asia, Africa, and Latin America because they control or contact the supernatural. Third, almost all local education in the past was in the hands of religious groups. And fourth, recreational ceremonial gatherings, such as the fiesta in Latin America, have often been the only focus of common interest for all community members.

Civil leaders are dedicated by nature to the development of their communities, and it should be expected that they would work with an outside change agent. They are leaders in such organizations as farmers' clubs, cooperatives, PTA's, youth clubs, and welfare groups. However, they tend to be found in much greater numbers in urban communities than in rural areas because of less extensive kinship relations in the cities. The leaders of these groups can be expected to both sanction and assist in implementing change efforts. The one disadvantage is that these individuals tend to be young, and in traditional communities, where age is still given deference, their views may not carry too much weight. However, they should be utilized as much as possible.

The noninstitutional leaders, or wise men or women, are the people who owe their position to personal achievement in wealth, religious merit, political manipulation, wisdom or some other culturally approved criteria for gaining prestige. Those leaders do not have an organized body of followers, but their prestige or respect may still be great enough that they are listened to, sometimes even over the heads of the formal leaders. Thus, a water improvement project in Ghana was held up for two years because the formal leader, the village headman, opposed it. He even went so far as to consult the local fetish and then reported to villagers that anyone who would work on the project would die. An elder in the village disagreed; he obtained the assistance of the local teacher, and initially persuaded one-fifth of the villagers to help in cementing the base of the spring. When the misfortune predicted by the headman did not materialize, the other villagers were persuaded to cooperate (Yao, 1962).

Thus, working through local leaders is of central importance for the successful diffusion of new ideas. Administrative leaders are most important because they are most directly concerned with development, but religious leaders and educators are also significant, mainly because they bring desirable services (education and supernatural aid). But, the older, respected wisemen or women of a group should also be consulted and considered as aids in implementing change.

The Innovator or Agent of Change

No change program or innovation is introduced or evaluated by itself. The new project or technique is always introduced by an administrator, technician, visiting agent, foreign physician, native leader, or someone else. Thus the "innovator" is also a part of the situation, and his or her role as a factor must be assessed. To assume that simply because natives are playing the role of innovators, their success will be easy to come by is dangerous. Native innovators could be in their positions because of certain aberrant qualities not generally approved. Thus, they can hinder acceptance.

Programs and innovators associated with the national government or foreign government agencies can suffer because of past experiences with these bodies or negative reputations. Maurice King (1958) offers the example of an early

program of social work in Egypt that was hampered by this fact: "Getting acquainted with villagers was difficult because social work in its modern form was not known even to many well-educated persons in the area, and because of the suspicion of the fellaheen, many of whom were doubtful about any move to change or improve the conditions of their life. Government officials came to uphold the laws, to gather taxes, to follow criminals, or to fine them for their ignorance and misunderstanding of state laws." (p. 39)

Foreign technicians or physicians serving as innovators also suffer from handicaps when entering the host country. One problem is a tendency to attempt to produce the perfect project the first time. Technicians are usually and justifiably proud of their abilities and they are anxious to do the very best job possible. Overdesign, overly sophisticated projects, programs which are ill-conceived or suffering from unrealistic goals and standards sometimes result. The professional pride that is an impetus to these problems can also lead to overzealous behavior and subsequent depression. History has demonstrated that technological change in health and other sectors is a multilinear, not a unilinear, process. There is no one solution, no one program that will right all wrongs. Instead, each activity builds upon, draws from, and contributes to many other activities. When professional pride combines with professional jealousy, the joint planning and operations that are necessary to produce the most successful programs are difficult to achieve.

Foreign innovators reflect their own cultures and their views of themselves as professionals are deeply influenced by these forces. In Western nations, the recognition received from peers, clients, and superiors is a major support to one's self-image. All people like to believe they are competent individuals and we learn to expect and need confirmation of that from others in the form of recognition for our ability and performance. When innovators, skilled technicians, are in a foreign nation, these same expectations operate. In fact, there is a tendency to see one's self in a missionary role, with a sense of urgency and mission. When one encounters a less enthusiastic response to one's efforts than is expected, anger and unexpressed tension is often released. Often one assumes those responses are due to disappointment in the client group members because they are jeopardizing opportunities to make progress. Continued rejection can lead the specialist to project feelings of inadequacy on the people and to see them as ungrateful, apathetic, or stupid. It is very difficult to step back objectively and see one's self as the cause.

The consequences of this statement are spoken of by Joseph (1942): "He (the physician) finds blank faces where he expects smiles, smiles where he expects seriousness, silence when he waits for an answer, and complaints where he expects approval and praise . . . the physician, frustrated by the failure of his attempts at goodwill, and in his usual condition of physical exhaustion, sees himself as the victim of not being understood, as the target of secret attacks, and, rather often, as the 'sucker' who is exploited by every patient. And out of this state of mind such statements as these are born: 'Do not spoil them, don't be too friendly with them, because you will lose their respect.'" (p. 3)

Another handicap sometimes found among foreign innovators is the cognitive set or orientation toward medical problems and community relations. In particular, Foster (1973) suggested that the American philosophy and approach to community development carries certain assumptions that don't apply in LDC's. In the following excerpt he describes and contrasts the typical community development concept in American and that of a peasant village.

"Some of the pre-conditions in the United States that were instrumental in defining the philosophy and methodology of community development (are):

1. Communities have the power to tax themselves.
2. Administrative organizations with the legal powers to take action are under community control.
3. Populations are basically literate.
4. Leadership patterns are well developed.
5. Since the time of the frontier there has been a tradition of genuine cooperative work, and formal and informal social devices such as the town meeting and proliferating committees exist to implement this cooperation.
6. However depressed a particular small area, it is part of a wealthy country, which in times of need will funnel help from other areas.
7. Technical services in health, agriculture, education, and the like are highly developed and available.

"In short there is unlimited basic potential. The role of the community developer is therefore that of a catalyst, that of stimulating people to take stock, assess needs, decide upon action, determine priorities, and get to work. This makes sense in the American context. But let us look at the peasant villages in developing countries where this philosophy is being applied. Here are the corresponding characteristics commonly found:

1. The communities have essentially no power to levy taxes. They are at the mercy of national or state governments for all major and most minor developmental funds, including those for building schools and paying teachers. Any project that costs much money must be financed from outside the community.
2. Village government is truncated; only the most minor decisions can legally be made, and elected village leaders are reluctant to push beyond the modest limits of their authority.
3. Populations are not literate. People are often uncritical in their judgments, and rumors run rife.
4. Leadership patterns are poorly developed. Often the most competent people judiciously avoid entanglement in leadership squabbles.
5. There is little tradition for cooperation; there are fewer mechanisms for it; and people fear cooperation will enable their fellows to take advantage of them.
6. Peasant villages are part of economically depressed nations; they cannot count on the funneling of much help from other parts of the country.
7. Basic technical services are poorly developed, and sometimes lacking. Even if the community defines its needs, it cannot often get the outside support it wishes." (pp. 182-184)

The point Foster is making is not that community development is unsuccessful; it is good, and sometimes excellent, in spite of the natural handicaps under which it labors. The point is that the innovator must have a conceptual and philosophical cultural fit that is suitable to the community. Often highly competent technicians have not been prepared by their American training and experience to be flexible, to question their own assumptions, and to work out with the help of community members what is right for that location.

Everyone, when first stationed in a foreign country, experiences culture shock to some degree. The symptoms of culture shock are an excessive preoccupation with drinking water, food, and dishes, fear of physical contact with servants, great concern over minor pains and skin eruptions, a hand-washing complex, fits of anger over delays and other minor frustrations, a fixed idea

that "people" are cheating one, delay and outright refusal to learn the language of the country, an absentminded faraway stare (sometimes called the "tropical stare"), a feeling of helplessness and a desire for the company of people of one's own nationality, and "that terrible longing to be back home, to be able to have a good cup of coffee and a piece of apple pie, to walk into that corner drugstore, to visit one's relatives, and in general, to talk to people who really make sense." (Oberg, 1954, p. 2-3)

The malady of culture shock is caused in part by communication problems and in part by gnawing feelings of inadequacy, which grow stronger and stronger as the specialist realizes that all those hoped-for goals are not going to be reached. When a person enters a strange culture, all familiar cues are removed, a series of basic props have been knocked out; naturally, frustration and anxiety follow. As one anthropologist points out: "When Americans or other foreigners in a strange land get together to grouse about the host country, and its people— you can be sure they are suffering from culture shock." (Oberg, p. 2)

The removal of the familiar cues and relations that prompt culture shock also signifies the existence of the other cultural baggage one carries with them. These include the perceptions of right and wrong, of certain ways of doing things and attitudes. All of these predispose an individual to make biased judgments of others. In a previous section the need to strip all behaviors and programs of Western cultural associations was discussed. It is in this way that the effects of these biases can be at least partially eliminated. Two anecdotes that illustrate the importance of this practice follow.

"In terms of health facilities they (new Peace Corps members) tend to confuse 'old' with 'dirty' and to interpret 'dirty' as 'lazy' as opposed to, for example, the result of lack of funds. They aren't used to trying to figure out what's happening. They decide what's happening without going through the process of trying to find out why. They say the hospital is dirty and then they stop and put their own value judgments on the fact that it is dirty— 'therefore the nurse is lazy.' They don't have any medicine in the hospital so how in the world can they afford paint?! It's not necessarily preconceptions but not going past first observations— a few steps beyond to see what the reason is . . . Once you've made a value judgment it's hard to work with that situation. Once you've decided something has a negative connotation it's harder not to become emotional in dealing with that situation. If you're feeling underneath that the nurse is lazy whether you say it or not it affects how you work with that person." (Brownlee, 1978, pp. 439-440)

"As public health workers, we carry with us an enormous amount of 'cultural baggage' of our own. In nutrition, for example, we will often insist on 3 meals a day, animal milk for babies, and a balanced diet every 24 hours. This insistence is a result of our non-Indian culture rather than a consideration of the basic principles of nutrition, or an examination of the local Navajo dietary pattern for the actual nutritive and caloric value of their food in relation to their growth and work patterns." (Navaho Health Education Project, 1959, p. 1)

The Status and Qualities of the Innovation Program or Technology

The way in which a new project is perceived and understood is strongly related to its chances for success. As this manual has emphasized, a program is most effective if it is adaptive. This means it requires and prepares the people for a modification of their existing beliefs and practices. In contrast, an additive innovation is one that requires beliefs or practices which are alien to the local cultural system and a replacement innovation relies upon the theoretical replacement of a set of existing beliefs and practices. Arensberg and Niehoff (1971) offer these examples:

"Adaptive: Improved varieties of existing seeds, plants, and animals.
Traditional healers trained as modern medical corpsmen.
Improvement of existing roads, houses, or canals.

Additive: Vegetable gardening where none existed before.
Animal husbandry among horticultural people.
Treatment of syphilis with penicillin where no treatment previously existed.

Replacement: Vegetable gardening to replace tree crops.
Brooker chicken raising to replace the open flock system.
Medical corpsmen to replace traditional healers."
(p. 135)

The Adaptive Program or Service Changes Have Been Found to Be Most Successful

Besides the psychological, social, and cultural factors one must consider in making a program adaptive, there are several practical variables to consider. Specifically, the economic pattern of a people. The economic pattern is probably more vital than any other part of the culture of the poor. No outsider should expect people in poor communities to accept innovations which will disrupt their traditional economic pattern unless there are compelling reasons or an alternative is offered. Some aspects of economic systems to consider include work methods, schedules, groupings, proprietary rights, and distribution and consumption patterns.

All communities have a set of traditionally learned manual techniques that enable local people to produce the goods necessary to sustain life in the accepted manner. One of the most important aspects of such work methods are the traditionally learned motor habits. Alteration of such habits will cause some resistance simply because people will need to go through another learning process to change. So new habits of work will be undertaken in proportion to the degree of perceived advantage of the innovation. When the advantages are considerable, people are more likely to adopt new practices, but if those advantages require long periods of waiting, they lose their power as incentives. As was discussed in the section on culture and behavior, perceived immediate rewards or potential positive consequences are much more potent.

A vital part of any economic system is that work be scheduled. In nonindustrial nations, schedules tend to be geared by seasonal variations; the requirements of the agricultural cycle, the natural light conditions, or temperature. This suggests the innovations be introduced to fit with local scheduling requirements in order to minimize potential resistance.

Work is also controlled by who will do it. Although much work in agrarian societies is done by family members or kinfolk, there are also some traditional work groupings not based on kinship. Many development projects, particularly community development and environmental health programs, are expected to be done by community-wide groups. Creating work groupings on a model familiar to the foreign innovator and ignoring the possibility of locally existing ones is not a recommended procedure since there will be little natural basis for cooperation. Two cooperatives were organized in a development scheme in India in which caste membership was ignored. The cooperative, which was formed by the American change agents with mixed caste membership, failed to find willing cooperation and was termed unsuccessful, while the one which was based on the membership of a single caste (Chamar) became one of the most successful ventures of the project (Fraser, 1963).

Although there is a wide range of proprietary rights throughout the world, two of the most important are those that concern ownership of land and one's family. Proprietary rights in land are quite important because (except in the socialist countries) they are linked with caste or class privilege. Proprietary rights over one's family can easily hamper health care programs. Awareness of the cultural roles of wives, husbands, children, and other relatives in the family unit will aid in gaining effective cooperation of a family in any health care program.

All cultures must contain distribution patterns to spread the fruits of production throughout the population. The two most important in most cultures are the market system and transportation facilities. Although there is the very widespread distribution pattern based on kinship, the assemblage of traders which makes up the traditional market is also important for epidemiological analyses and for communication.

Ultimately, there must be as a part of the economic system some standardized ways of using the goods that have been produced and distributed, and these are the consumption patterns. Food consumption patterns are a major concern within the health sector. Where production is relatively low, as with village people in the agrarian nations, most of the diet will tend to be the local grain or root staple, rice, wheat, kaffir corn, maize, yams, or cassava. The poor will tend to eat very little meat, primarily because it is relatively costly, and few vegetables either because these take a relative large amount of attention in cultivation or do not fill a person as much as the grain or root staples. Family hygiene and food preparation are important details of the lifestyle which should be carefully investigated to understand the health situation of a people.

The processes of food storage preparation and consumption can have important health effects. Thus, it is important to understand what local processes are used and how important these are to the community. Listed below are several of the problems with food consumption found in some developing areas.

Spoilage occurs as a result of intense heat, if perishable foods are left uneaten or unprocessed even for a short time. Contamination is spread by washing dirty dishes in polluted streams, and storing them uncovered against the dust and from marauding domestic animals who wish to sample any food left unattended for a moment.

Disease may be spread by the custom of the entire family eating from a communal bowl with their fingers, as, though hands may be washed, they are often not washed very thoroughly. An obviously sick family member may be given a separate bowl, but often the illness may go unnoticed, or other members infected through eating from the same bowl before the disease is detected.

Children may receive an inadequate amount of protein because of the custom of giving most of the meat to the grown males, even if the women may surreptitiously hide a few morsels for their younger offspring.

Family hygiene practices may include cleaning spoiled clothes or disposing of wastes (animal and human) without adequately cleaning the hands after these activities. In some cases after completing these tasks the women begin to prepare food for the family and spread contamination.

General Approaches to Coping with These Obstacles

In order to develop or plan a suitably adaptive program of innovation, numerous cultural, social, psychological, and practical variables must be considered. The ability of a foreign or a Western trained native technician to efficiently evaluate and cope with these potential obstacles is hampered by time, effort, and cultural biases. One vital means of coping with this task

must be underscored. That is to involve local people thoroughly in all aspects of any project. Participation by local people in all stages of a health project means that they are being committed to its goals by giving something, and that they are learning about the nature of the program before the technician/specialist leaves.

Many kinds of participation can take place. For example, contributions by the local people of labor or material, or the creation of committees and organization, or informal discussions and opinion gathering conversations. Through these efforts the local people can also be trained to take over some of the assessment tasks. Ongoing evaluation of the acceptance of a program, its general effectiveness, how it could be modified, etc., can all be accomplished by local people. How thoroughly these tasks are accomplished will vary, but at the very least, some of the community members will be trained and aware of data collection and evaluation methods.

Throughout these discussions the need for careful observation has been stressed. In planning or assessing any health care program, a thoughtful understanding or thinking through of the beliefs of the people, possible clashes in values and potential misperceptions is necessary. This understanding requires sensitivity, an awareness of possible differences, and a responsiveness to the people.

When there are distinct differences between people's perceptions or beliefs and those supported by a program or its staff, those differences should be acknowledged. The perceptions could deal with the causes of illness, how treatments work, why personal hygiene and sanitation are important, and numerous other concerns. In contemplating a strategy to deal with the perceptions or beliefs, several alternatives exist.

Attempt to influence the perceiving people directly.
Alter the environment so that it will in turn alter people's perceptions.
Create situations within which people just continue to remain in contact with the new situations.
Attempt to satisfy the needs and emotions which lie at the root of the existing behaviors in a way which will include the proposed change.
Create social support for the individual who adopts the new behaviors.

In order to understand why people don't use a service or a program or what information people use to make judgments about adopting new behaviors or participating in programs, one has to consider the long term and potentially unforeseen consequences of planned intervention. Considering these before planning an intervention will greatly enhance the probability of a successful program. In the strategy of directed culture change, this analysis is important: if the reasons for resistance are carefully examined, it may be found that a series of innovations that tie together and reinforce each other will be successful where a single innovation will fail.

An example of the usefulness of this analysis can be found in a Community Department Program in a village in India. Here, cooking is traditionally done over an open dung fire in the kitchen. There is no chimney and there are few windows, so the room fills with choking smoke, which gradually filters through the thatch roof. Cooking is unpleasant under such conditions, and respiratory and eye ailments are common. The Community Development Program recognized this situation as a serious threat to health and developed an inexpensive pottery stove, a "smokeless chula," which maximizes the efficiency of fuel and draws smoke off through a chimney. It was sold at very low cost to villagers. Yet the smokeless chula had limited success. In much of India woodboring white ants infest roofs; if they are not suppressed they ruin a roof in a very short

time. The continual presence of smoke in the roof accomplishes this end. If smoke is eliminated, roofs must be replaced far more often, and the expense is greater than farmers are able to support. So the problem of introducing the smokeless chula—at least in many areas—was not in the villagers' addiction to smoke-irritated eyes, nor in the love of tradition, or in their inability to understand the cooking advantages of the new stove, nor in the direct cost of the stove itself. They had considered the trade-off alternatives and decided that the disadvantages of the new stove outweighed the advantages.

In this case the critical area of resistance has nothing at all to do with cooking. The Indian villagers probably did not know, before they tried the smokeless chula, that smoke preserved roofs. This was discovered when smoke was removed. If the roof can be preserved by other methods, the threshold of resistance to improved cooking methods will be greatly lowered. Malaria control with regular pesticide spraying is an important project of the Community Development Program. If spraying is coordinated with the demonstration of the smokeless chulas, white ants as well as mosquitoes would be eliminated, and one of the costs—economic in this case—that constitutes a barrier, is eliminated.

Considering the long term consequences of a program, or understanding the cultural and psychological make-up of a people, is best accomplished through contact with those people. Visiting and chatting with members of a community is an important means of comming to understand their world view. To be able to have a close personal relationship with one or more members is the optimal situation. With a confidant of this type, one cannot only get a candid evaluation of ideas or plans, but also of one's own approach or attitude. Friendships with members of a community and other inroads to the informal communication network are important to performing useful assessments and effective planning.

Assessment Questions to Consider

Some of these questions have been adapted from Brownlee (1978). The first set asks how does the community operate.

- How does information usually spread from one place to another within the community?
- What are the important formal channels of communication?
- The important informal channels?
- Who do the channels reach and how effective are they?
- What are the patterns of interaction within the community?
- Where do people usually gather or get together? Are these important places of communication?
- Who are the important opinion leaders and "communicators" within the community?
- Who has the greatest authority in the health area?
- Why are various leaders influential?
- What effect does the authority of various leaders have on the acceptance of their messages?
- What channels of communication do these leaders use?
- What channels of communication between the health program and community are currently being used? Are there certain difficulties that might be traced to lack of effective communication in some fields? Are there segments of the population that are not being reached?
- Could other means of communication be developed and used?
- Is there an active grapevine between the program and community?
- Can distortions be minimized by better communication at certain points?
- Could certain channels of communication already in operation within the community be used by the health program itself?

- Would certain community leaders and other communicators be willing to transmit messages between the program and their constituents?

The relationship between the community and the health program is explored in this second set of questions.

- What are the attitudes of outside staff toward local community members and patients?
- What are the community's and patient's attitudes toward staff members coming from outside the local area?
- Does it vary with the area from which the worker comes? With the worker's position? Personality?
- How does the population feel in general toward outsiders and foreigners?
- How may this affect their specific attitudes toward the health worker?
- What might be the reasons for their feelings?
- How long do outside staff members usually remain in their positions in the local health program?
- Are there any difficulties in community and patient relations caused by the short-term nature of some of the contracts?
- Do the outside health workers' life-styles and physical living conditions tend to integrate or separate them from the local community?
- Should any changes be made?
- How will attempts by outside staff members to adjust to or imitate local behavior patterns be seen by the local population?
- To what extent should outsiders try to adopt or at least show appreciation of local customs?
- How do community people, patients, and staff make their opinions about the health program known?
- How are suggestions and complaints registered and dealt with?
- If the present system is inadequate, what new ways to handle suggestions and complaints could be developed?
- Do certain complaints mask hidden areas of concern? What can be done about the underlying causes of difficulty?

The following questions deal with possible program problems.

- What community members are ignored by the services?
- Do certain people act as "gatekeepers," controlling communication within the program between patients and staff?
- How does information have to be altered if focused at various levels within the population?
- Are there traditional channels of communication through which information flows from the leaders down to the population and is simplified in the process?
- Could the health worker employ any of these channels?
- Are there any problems between staff that arise because of racial prejudice or discrimination?
- What is health program policy toward the hiring of various ethnic groups?
- Within the health program itself, what percentage of various ethnic or national groups are in positions of power and authority?
- What may account for differences?
- Are changes needed?
- What techniques might be used within the health program to begin working on problems of racial prejudice and discrimination among the staff itself?
- With what community groups or persons can the health worker communicate most easily? Least easily?
- Do tendencies to interact with certain people more often cause distortions in the way in which the health worker perceives the community? How can distortions be lessened?

- What means of communication are currently being used between staff and patients within the health program?
- Is communication adequate? If not, what adjustments might be made?
- Are there ways to check for areas where understanding is poor and eliminate them?
- Can you identify possible barriers to effective staff-patient communication within the program? Barriers that may be due to differences in cultural beliefs, practices, and values or differences of social and economic status, education, sex, or age. What might be done to overcome these barriers?
- Do any typical difficulties seem to arise between workers of differing age, sex, religious affiliation, education, health program status, or health discipline?
- Do any difficulties arise because workers of various cultures have differing attitudes on roles workers should play (i.e. roles workers of different ages or of different sex should play?)
- Are there any basic clashes of personality between staff members? What seem to be the causes of disagreement or dislike?
- What can be done to emphasize or broaden positive aspects of staff interrelations and lessen difficulties and misunderstandings?
- What means of communication are currently employed between staff members within the health program?
- Is communication adequate? If not, what new means for facilitating communication might be used?
- What means of communication between the health program and its sponsoring and/or supervising organization(s) are currently being used?
- How effective is communication?
- If poor, how could it be improved?

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